



COPY

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452 Burbank Street
Broomfield, CO 80020

(303) 466-3573
FAX: (303) 469-6354

June 11, 1993

Mr. Steve Heiman
EG&G Rocky Flats, Inc.
Rocky Flats Plant
Procurement, Bldg. 131
P.O. Box 464
Golden, Colorado 80402-0464

SUBJECT: SUBCONTRACT PC 84017JB ROCKY FLATS SOLAR POND/PONDCRETE PROJECT
[WBS 710 PROJECT MANAGEMENT - HALLIBURTON NUS ROCKY FLATS DENVER]
BUYOUT OF LEFCO'S CONTAMINATED PUMPING EQUIPMENT
RF-HED-93-0356

Dear Mr. Heiman:

Attached please find a copy of a letter from Mr. Roy Pruden of LEFCO Environmental Technology supplying the requested information regarding the Flygt Submersible electric pump. As stated in his letter we are forwarding the parts listing and operators manual.

If you have any questions, please do not hesitate to contact me.

Sincerely,

HALLIBURTON NUS CORPORATION

A handwritten signature in black ink, appearing to read "John Schmidt".

John A. Schmidt
Deputy Project Manager

JAS/jg

Enclosures: (Letter from Roy Pruden dated 06/10/93;
Flygt Installation Care & Maintenance Model 3101.180 & 3126.181;
& Flygt Parts List 3126.180)

cc: T. Bittner
T. Beckman
S. Keith
J. Roberts

A:LTR/HEIMAN-136
RF-HED-93-0356

LEFCO

Environmental Technology

June 10, 1993

Mr. Brad Allen
Halliburton NUS Environmental Corporation
Rocky Flats Solar Pond/Pondcrete Project
452 Burbank Street
EG & G Building 025
Broomfield, Colorado 80020

Subject: Inquiry No. 2315-3157-52507
Sublet Work: Consolidation and Treatment of Ponds
Project: Rocky Flats Solar Pond/Pondcrete Stabilization
Client: EG & G Rocky Flats, Inc.
Re: Submersible Pump Purchase

Dear Brad,

Lefco is complying with John Schmidt's letter dated June 8, 1993 regarding the submersible pump 'buy-out'. The pump will cease being billed for after June 8, 1993.

The enclosed operators manual for the Flygt submersible electric pump, Model number 3126-181, also enclosed is the parts listing for this model series pump. Lefco's records do not identify a serial number(since this is the only Flygt pump there should not be a problem).

I hope this meets with your approval. If you have any questions please call.

Sincerely,



Roy Pruden,
Vice President

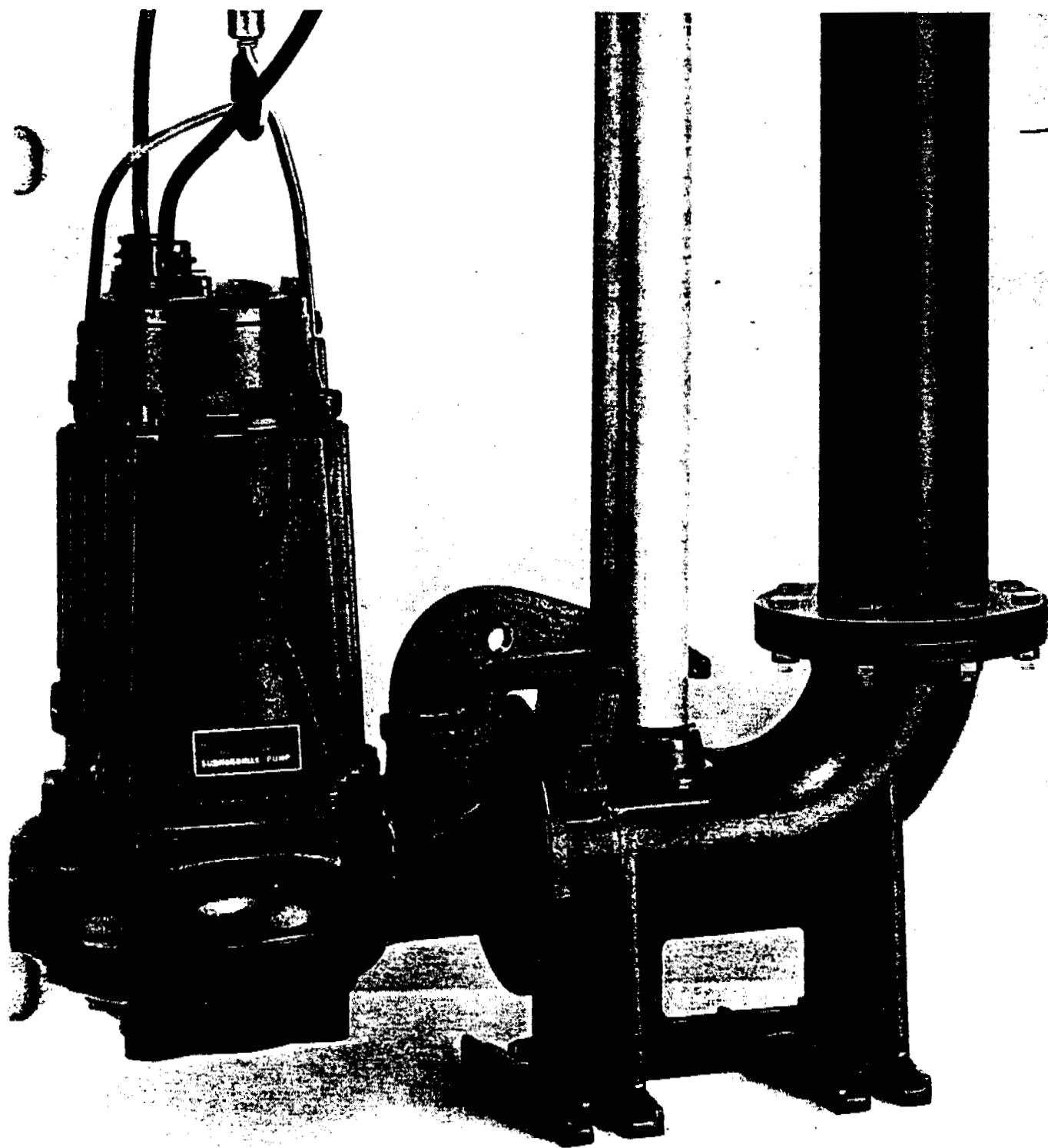
encl.

Flygt Installation Care and Maintenance Model 3101.180 & 3126.181
Flygt Parts List 3126.180

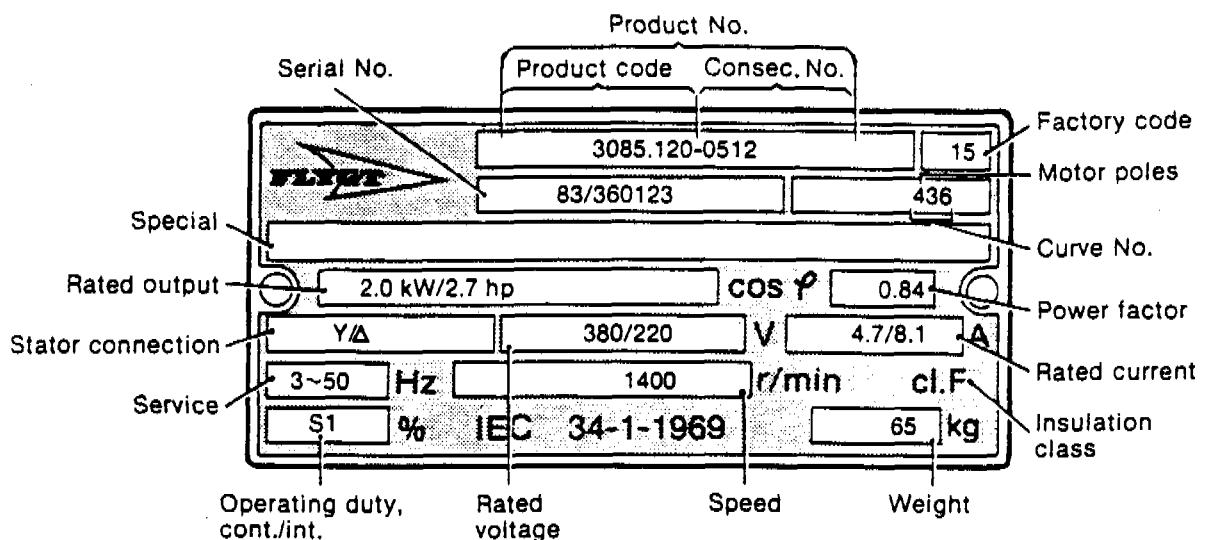
3101.180, 3126.181

**INSTALLATION,
CARE AND
MAINTENANCE**

FLYGT



DATA PLATE INTERPRETATION



Flygt undertakes to remedy faults in products sold by Flygt provided:

- that the fault is due to defects in design, materials or workmanship;
- that the fault is reported to Flygt or Flygt's representative during the guarantee period;
- that the product is used only under conditions described in the care and maintenance instructions and in applications for which it is intended;
- that all service and repair work is done by a workshop authorized by Flygt;
- that genuine Flygt parts are used.

Hence, the guarantee does not cover faults caused by deficient maintenance, improper installation, incorrectly executed repair work or normal wear and tear.

Flygt assumes no liability for either bodily injuries, material damages or economic losses beyond what is stated above.

Flygt guarantees that a spare parts stock will be kept for 15 years after the manufacture of this product has been discontinued.

The manufacturer reserves the right to alter performance, specification or design without notice.



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PRODUCT DESCRIPTION

Applications

3101 and 3126 are intended to be used for:

pumping of waste water

pumping of sludge

HS 3126 is intended to be used for pumping of water that contains abrasive particles.

Liquid temperature: max. 40°C (103°F)

Liquid density: Max. 1100 kg/m³ (9.2 lb per US gal.)

The pumped liquid may contain particles up to a size which corresponds to the throughlet of the pump.

The pH of the pumped liquid: 6—11.

Depth of immersion: max. 20 m (65 ft).

The following pumps with a swirl-type impeller may not be operated at a too low discharge head, since this causes overloading of the motor.

Pump	Curve no. (stated on the data plate)	Minimum discharge head
3101	472	6.5 m(21.3 ft)
	474	3.5 m(11.4 ft)
3126	470	3.6 m(11.8 ft)
	471	6 m(19.7 ft)
	472	6 m(19.7 ft)

If required contact your nearest Flygt representative for further information.

The pump shall not be used in explosive or flammable environments or with flammable liquids.

For other applications, contact your nearest Flygt representative for information.

Design

3101 and 3126 are submersible, electric motor-driven pumps.

Motor

Squirrel-cage 3-phase induction motor for 50 Hz or 60 Hz.

The motor is started by means of: direct on-line start or star-delta start.

The motor can be run: continuously or intermittently with a maximum of 15 evenly spaced starts per hour.

The stator is insulated to class F(155°C, 310°F). The motor is designed to supply its rated output at ±5 % variation of the rated voltage. ±10 % variation of the rated voltage, in respect of the temperature, can be accepted provided the motor does not run continuously under full load. The motor is designed to operate with a voltage imbalance of up to 2 % between the phases.

Monitoring equipment

The stator of 3126 incorporates three thermal protectors connected in series.

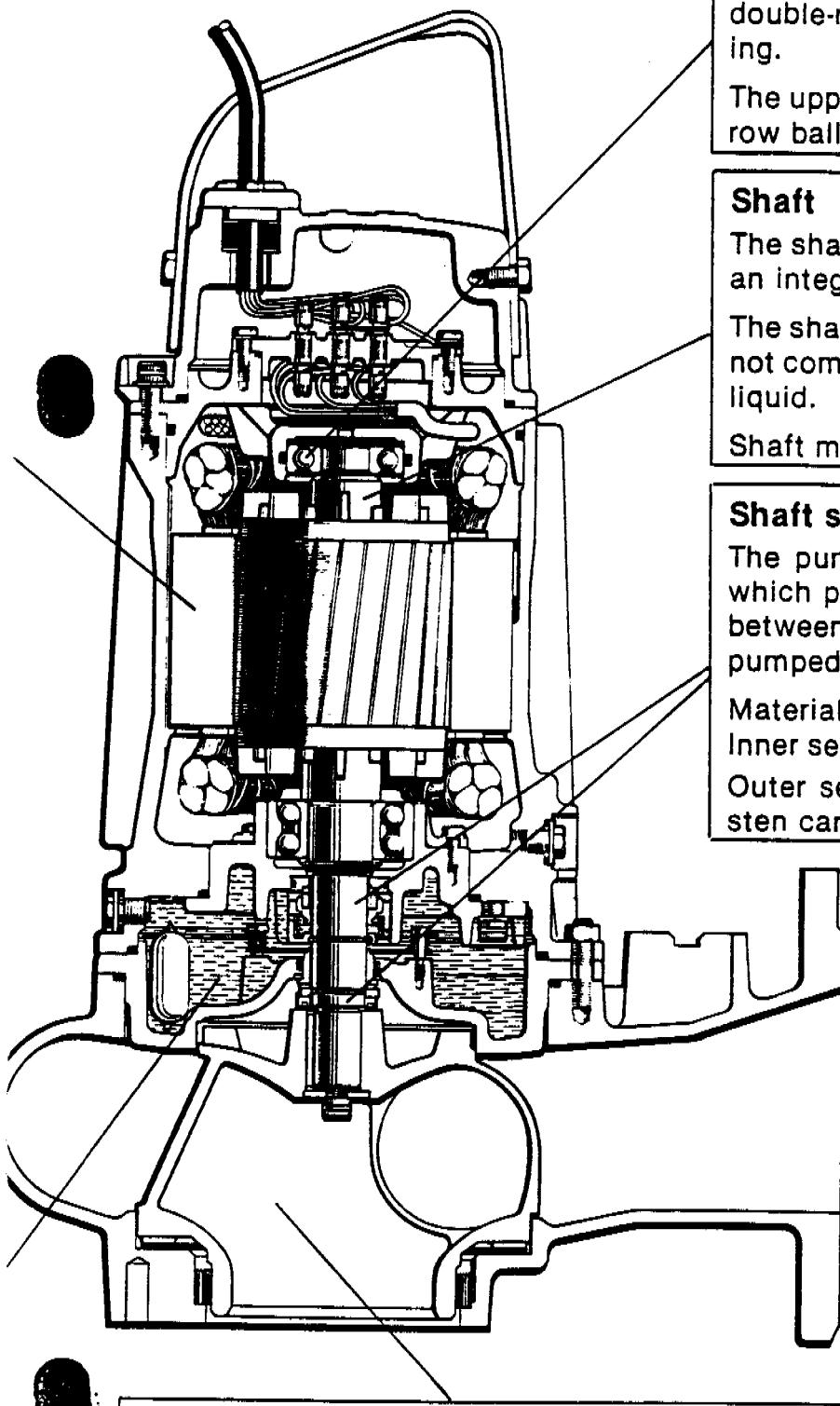
The thermal protectors:
open at 125°C (260°F)
close at 70°C (160°F)

See also "Electrical connections" and separate instructions for starters.

Oil casing

The oil lubricates and cools the seals and acts as a buffer between the pump casing and the electric motor.

Pressure build-up within the oil casing is reduced by means of a built-in air volume.



Bearings

The pump bearings are designed for at least 17 000 hours of operation.

The lower bearing consists of a double-row angular contact ball bearing.

The upper bearing consists of a single-row ball bearing.

Shaft

The shaft is delivered with the rotor as an integral part.

The shaft is completely sealed and will not come into contact with the pumped liquid.

Shaft material: stainless steel.

Shaft seals

The pump has two mechanical seals which provide the isolation necessary between the electric motor and the pumped liquid.

Materials:

Inner seal: tungsten carbide — carbon.

Outer seal: tungsten carbide — tungsten carbide.

Impellers

The pump is available with the following types of impellers:

single-vane impeller of cast iron.

two-vane impeller of cast iron.

heavy-duty impeller, designed especially for abrasive particles (only HS 3126).

swirl-type impeller of cast iron.

Technical data

3101 and 3126 are available in the following versions:

low-head version	— LT
medium-head version	— MT
high-head version	— HT
swirl-type impeller version	— D

All versions have different impellers for different head and flow rate.

For information regarding capacity of the pump consult your nearest Flygt representative.

For other abbreviations see "Installation alternatives".

Pump	Electrical motor, 3 ~ 50 Hz							
	kW	r/min	200 V	220 V	380 V	415 V	550 V	
3101	3.1	1440	13	12	7	6.4	4.8	
3101	4.4	2850	18	16	9.3	8.5	6.4	
3101	2.35	1450	11	9.5	5.5	5.0	3.8	
3126	4.0	1445	17	15	8.9	8.1	6.1	
3126	5.9	1450	23	21	12	11	8.3	
3126	4.7	1450	20	18	11	9.6	7.3	
3126	7.4	2900	28	25	15	13	10	

Pump	Electrical motor, 3 ~ 60 Hz							
	Rated output	r/min	200 V	230 V	440 V	460 V	575 V	
3101	2.5 kW(3.4 hp)	1750	11	10	5.2	5.0	4.0	
3101	3.7 kW(5 hp)	1700	15	13	7	6.7	5.4	
3101	4.5 kW(6 hp)	3450	18	15	8	7.7	6.2	
3126	4.5 kW(6 hp)	1750	20	18	9	8.7	7	
3126	4.8 kW(6.4 hp)	1750	21	18	9.4	9	7.2	
3126	5.5 kW(7.5 hp)	1750	23	20	11	10	8.1	
3126	7 kW(9.4 hp)	1750	29	26	13	13	10	
3126	6.5 kW(8.7 hp)	3490	—	21	11	10	—	
3126	8.3 kW(11 hp)	3475	—	26	14	13	—	

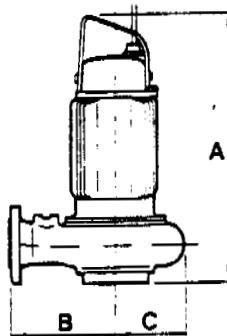
Pump	Electrical motor, 1 - 60 Hz			
	Rated output	r/min	Rated current 230 V	
3101	2.9 kW(3.9 hp)	1730	16 A	
3126	5.5 kW(7.4 hp)	1730	30 A	

Dimensions and weights

All dimensions are in mm (in)

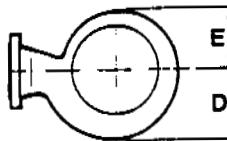
3101

	A	B	C	D	E
LT	738(28.8)	290(11.3)	184(7.2)	210(8.2)	155(6.0)
MT	724(28.2)	285(11.1)	178(6.9)	193(7.5)	159(6.2)
HT	719(28.0)	285(11.1)	142(5.5)	142(5.5)	140(5.5)
D	724(28.2)	285(11.1)	178(6.9)	193(7.5)	159(6.2)



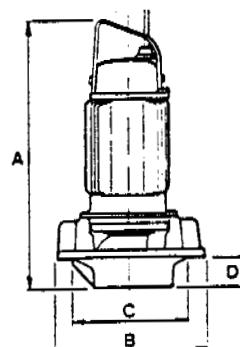
3126

	A	B	C	D	E
LT	863(33.7)	350(13.7)	217(8.5)	251(9.8)	177(6.9)
MT	848(33.1)	310(12.1)	214(8.3)	242(9.4)	190(7.4)
HT (curve 461-467)	821(32.0)	310(12.1)	202(7.9)	182(7.1)	155(6.0)
HT (curve 250-259)	804(31.4)	310(12.1)	168(6.6)	182(7.1)	155(6.0)
D	909(35.5)	310(12.1)	214(8.3)	242(9.4)	190(7.4)



LL

	A	B diam.	C diam.	D
LL 3101	750(29.3)	380(14.8)	282(11.0)	72(2.8)
LL 3126	865(33.7)	480(18.7)	384(15.0)	92(3.6)



Weight in kg (lb) without motor cable and discharge connection:

3101		LT	MT	HT	D
CP	Pump Discharge connection	123(271) 46(101)	114(251) 35(77)	102(225) 30 ¹⁾ ;35 ²⁾ (66 ;77)	114(251) 35(77)
CS	Pump with base stand	125(276)	116(256)	104(229)	116(256)
CT	Pump Base stand	111(245) 53(117)	102(225) 28(62)	— —	102(225) 28(62)
LL	Pump	120(265)	—	—	—

3126		LT	MT	HT (Curve 461-467)	HT (Curve 250-259)	HS	D
CP	Pump Discharge connection	169(373) 62(137)	164(361) 46(101)	164(361) 35(77)	138(304) 30(66)	— —	164(361) 46(101)
CS	Pump with base stand	194(428)	176(388)	167(368)	142(313)	175(386)	176(388)
CT	Pump Base stand	161(355) 72(159)	156(344) 53(117)	156(344) 28(62)	— —	— —	156(344) 53(117)
LL	Pump	150(331)	—	—	—	—	—

¹⁾ Discharge connection diam.. 80

²⁾ Discharge connection diam. 100

Transportation and storage

The pump may be transported and stored in a vertical or horizontal position. Make sure that it cannot roll or fall over.

The impeller shall be locked during transport.

Always lift the pump by its carrying handle, **never** by the motor cable or the hose.

The pump is frostproof as long as it is operating or is immersed in the liquid. If the pump is taken up when the temperature is below freezing, the impeller may freeze. The pump shall be operated for a short period after being taken up in order to expel all remaining water.

A frozen impeller can be thawed by allowing the pump to stand immersed in the liquid for a short period before it is started. Never use an open flame to thaw the pump.

For longer periods of storage, the pump must be protected against moisture and heat. The impeller should be rotated by hand occasionally (for example every other month) to prevent the seals from sticking together. If the pump is stored for more than 6 months, this rotation is mandatory.

After a long period of storage, the pump should be inspected before it is put into operation. Pay special attention to the seals and the cable entry.

Follow the instructions under the heading "Before starting", page 14.

INSTALLATION

Safety precautions

In order to minimize the risk of accidents in connection with the service and installation work, the following rules should be followed:

1. Never work alone. Use a lifting harness (part No. 84 33 02), safety line (part No. 84 33 03) and a respirator (part No. 84 33 01), as required. Do not ignore the risk of drowning!
2. Make sure that there is sufficient oxygen and that there are no poisonous gases present.
3. Check the explosion risk before welding or using electric hand tools.
4. Do not ignore health hazards. Observe strict cleanliness.
5. Bear in mind the risk of electrical accidents.
6. Make sure that the lifting equipment is in good condition.
7. Provide a suitable barrier around the work area, for example a guard rail.
8. Make sure you have a clear path of retreat!
9. Use safety helmet, safety goggles and protective shoes.
10. All personnel who work with sewage systems shall be vaccinated against diseases that can occur.

Follow all other health and safety rules and local codes and ordinances.

Handling equipment

Lifting equipment is required for handling the pump.

The lifting equipment shall be able to hoist the pump straight up and down in the sump, preferably without necessitating resetting the lifting hook.

Oversize lifting equipment could cause damage if pump gets stuck when being lifted.

Make sure that the lifting equipment is securely anchored.

WARNING! Keep out from under suspended loads.

Installation alternatives

CP version

In the CP version, the pump is installed on a stationary discharge connection and operates completely or partially submerged in the pumped liquid.

In addition to the pump, the following items are required:

Guide bars consisting of two hot-dip galvanized pipes (2").

Upper guide bar bracket for attaching the guide bars to the access cover or top of the station.

Level sensors or other control equipment for start, stop and alarm.

Cable holder for holding the cable and regulating the height of the level sensors.

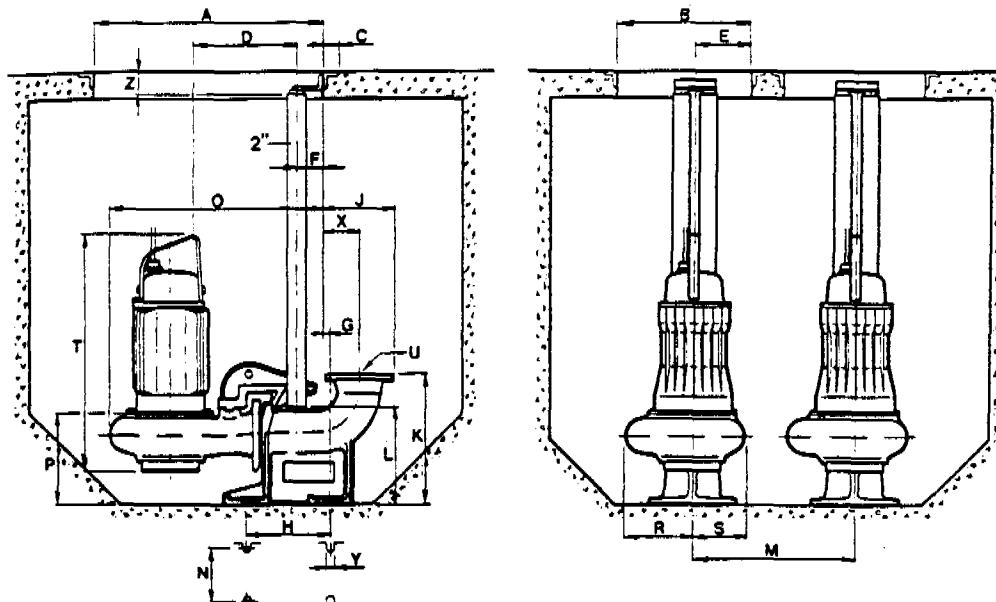
Access frame (with covers) to which the upper guide bar bracket and cable holder can be attached.

Discharge connection for connecting the pump to the discharge line. The discharge connection has a flange which fits the flange on the station piping. The pump casing mates with the discharge connection, which also has bosses for holding the guide bars.

Bushings for vibration damping between the guide bars and the discharge connection.

Discharge connection frame with anchor bolts for anchoring the discharge connection.

CP All dimensions are in mm (in)



	A	B	C	D	E	F	G	H
3101 LT	780(30.4)	570(22.2)	50(2.0)	352(13.7)	262(10.2)	85(3.3)	109(4.3)	280(10.9)
3101 MT	780(30.4)	570(22.2)	50(2.0)	347(13.5)	262(10.2)	85(3.3)	69(2.7)	250(9.7)
3101 HT	780(30.4)	570(22.2)	50(2.0)	347(13.5)	262(10.2)	85(3.3)	59(2.3)	250(9.7)
3101 D	780(30.4)	570(22.2)	50(2.0)	347(13.5)	262(10.2)	85(3.3)	69(2.7)	250(9.7)
3126 LT	780(30.4)	570(22.2)	50(2.0)	436(17.0)	262(10.2)	85(3.3)	139(5.4)	280(10.9)
3126 MT	780(30.4)	570(22.2)	50(2.0)	396(15.4)	262(10.2)	85(3.3)	109(4.3)	280(10.9)
3126 HT (curve 461-467)	780(30.4)	570(22.2)	50(2.0)	396(15.4)	262(10.2)	85(3.3)	69(2.7)	250(9.7)
3126 HT (curve 250-259)	780(30.4)	570(22.2)	50(2.0)	396(15.4)	262(10.2)	85(3.3)	59(2.3)	250(9.7)
3126 D	780(30.4)	570(22.2)	50(2.0)	396(15.4)	262(10.2)	85(3.3)	109(4.3)	280(10.9)

	J	K	L	M	N	O	P
3101 LT	236.5(9.2)	450(17.5)	367(14.3)	670(26.1)	250(9.8)	675(26.3)	323(12.6)
3101 MT	279(11.0)	400(15.6)	258(10.0)	670(26.1)	200(7.8)	664(25.9)	250(9.8)
3101 HT	254(10.0)	400(15.6)	258(10.0)	670(26.1)	200(7.8)	628(24.5)	255(9.9)
3101 D	279(11.0)	400(15.6)	258(10.0)	670(26.1)	200(7.8)	664(25.9)	250(9.8)
3126 LT	396.5(15.5)	450(17.5)	381(14.9)	670(26.1)	250(9.8)	768(30.0)	335(13.1)
3126 MT	337.5(13.2)	450(17.5)	367(14.3)	670(26.1)	250(9.8)	725(28.3)	321(12.5)
3126 HT (curve 461-467)	280(10.9)	400(15.6)	258(10.0)	670(26.1)	200(7.8)	713(27.8)	256(10.0)
3126 HT (curve 250-259)	255(9.9)	400(15.6)	258(10.0)	670(26.1)	200(7.8)	679(26.5)	256(10.0)
3126 D	337.5(13.2)	450(17.5)	367(14.3)	670(26.1)	250(9.8)	725(28.3)	321(12.5)

	R	S	T	U diam.	X	Y	Z
3101 LT	210(8.2)	155(6.0)	738(28.8)	150(5.9)*	194(7.6)	23(0.9)	70(2.7)
3101 MT	193(7.5)	159(6.2)	724(28.2)	100(3.9)*	164(6.4)	23(0.9)	70(2.7)
3101 HT	142(5.5)	140(5.5)	719(28.0)	80(3.1)*	154(6.0)	23(0.9)	70(2.7)
3101 D	193(7.5)	159(6.2)	724(28.2)	100(3.9)*	164(6.4)	23(0.9)	70(2.7)
3126 LT	251(9.9)	177(6.9)	863(33.7)	200(7.8)**	225(8.8)	23(0.9)	70(2.7)
3126 MT	242(9.4)	190(7.4)	848(33.1)	150(5.9)*	195(7.6)	23(0.9)	70(2.7)
3126 HT (curve 461-467)	182(7.1)	155(6.0)	821(32.0)	100(3.9)*	165(6.4)	23(0.9)	70(2.7)
3126 HT (curve 250-259)	182(7.1)	155(6.0)	804(31.4)	80(3.2)*	155(6.2)	23(0.9)	70(2.7)
3126 D	242(9.4)	190(7.4)	909(35.5)	150(5.9)*	195(7.6)	23(0.9)	70(2.7)

* Flange as per SMS 342, DIN 2533 or BS 4622:1970 table 11

** Flange as per SMS 342, DIN 2532 or BS 4622:1970 table 11

CP installation

Provide a barrier around the pump pit, for example a guard rail.

Arrange for a cable between the sump and the electric control box. Make sure that the cables are not sharply bent or pinched.

NOTE! The end of the cable must not be submerged. Leads have to be above flood level, as water may penetrate through the cable into the junction box or the motor.

Place the access frame in position. Align the frame so that it is horizontal and then grout it in place. Check that the guide bars will be vertical using a level or plumb line.

Install the anchor bolts in place. Be careful when aligning and positioning the discharge connection in relation to the access frame. See dimension drawing.

Place the discharge connection in position and tighten it. Secure the guide bars in the brackets and discharge bosses. Connect the discharge pipe to the discharge connection.

Bolt the cable holder to the access frame. Thread the level regulator cables through the holes in the cable holder and adjust the height of the sensors.

It is recommended that the level regulators be used with low voltage. The data sheet delivered with the regulators gives the permissible voltage. Local rules may specify otherwise.

Protect bolts and nuts with corrosion-preventive compound.

Lower the pump along the guide bars. On reaching its bottom position, the pump will automatically connect to the discharge connection. Fasten the lifting chain on the access frame eyebolt provided and the cables on the cable holder. Cable supports are required for deep installations. Run the cables up to the electric control box.

Clean out debris from the sump before starting up the station.

The pump can be hoisted up along the guide bars for inspection without any connections having to be undone.

CS version

In the CS version, the pump is transportable and intended to operate completely or partially submerged in the pumped liquid.

The pump is equipped with a connection for hose or pipe, see "Parts list".

The pump stands on a base stand.

CS installation

Run the cables so that they have no sharp bends, are not pinched and cannot be sucked into the pump inlet. Connect the discharge line and the motor cable. See "Electrical connections".

Lower the pump into the sump.

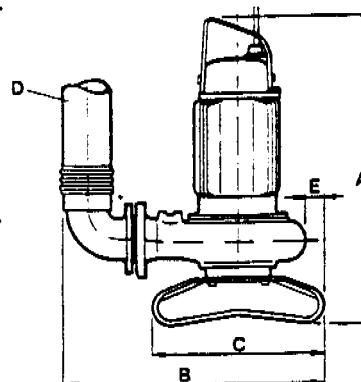
Place the pump on a base which prevents it from sinking into a soft sump bottom.

Alternatively, the pump can be suspended from above by its handle just above the bottom of the sump.

CS All dimensions are in mm (in)

3101	A	B	C	Ddiam.	E
LT	880(34.3)	673(29.8)	476(18.6)	150(5.9)	54(2.1)
MT, D	865(33.7)	686(26.8)	476(18.6)	100(3.9)	60(2.3)
HT	860(33.5)	682(26.6)	476(18.6)	80(3.1)	96(3.7)

3126	A	B	C	Ddiam.	E
LT	993(38.7)	873(34.0)	476(18.6)	200(7.8)	21(0.8)
MT, D	981(38.3)	783(30.5)	476(18.6)	150(5.9)	23(0.9)
HT (curve 461-467)	936(36.5)	700(27.3)	476(18.6)	100(3.9)	33(1.3)
HT (curve 250-259)	936(36.5)	700(27.3)	476(18.6)	80(3.1)	68(2.7)
HS	967(37.7)	573(22.3)	476(18.6)	100(3.9)	38(1.5)



LL version

In the LL version, the pump is installed in a stationary discharge arrangement.

The pump operates completely under water and requires no extra connections.

In addition to the pump, the following items are required:

Discharge pipe with bottom plate in which the pump is installed.

Cable holder for holding the cable and regulating the height of the level sensors.

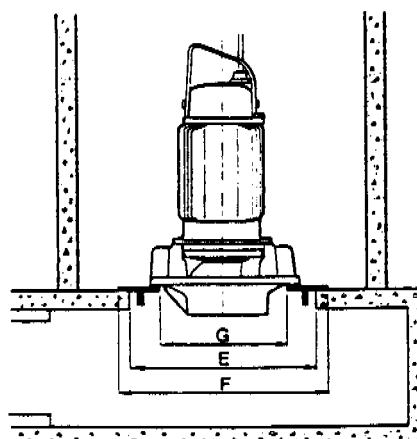
Screen at intake.

Level sensors or other control equipment for start, stop or alarm.

NOTE! The end of the cable must not be submerged. Leads have to be above flood level, as water may penetrate through the cable into the junction box or the motor.

The pump can easily be hoisted for inspection without any connections having to be undone.

LL



All dimensions are in mm (in)

	E diam.	F diam.	G diam.
LL 3101	600(23.4)	800(31.2)	290(11.3)
LL 3126	600(23.4)	800(31.2)	393(15.3)

CT version

In the CT version, the pump is installed in a stationary position in a dry well next to the wet sump.

The pump has a watertight motor and will therefore not be damaged in the event of flooding in the pump room.

The pump is air-cooled and the temperature of the motor casing can be as high as 100°C (212°F). The pump room shall be ventilated.

In certain cases, the CT version can only be operated intermittently. Contact Flygt for exact information.

In addition to the pump, the following items are required:

Base stand and anchor bolts for setting up the pump.

Inlet elbow for connecting the suction line.

Shut-off valves to permit the pump to be removed for repair.

Air vent on discharge side between the pump and the check valve.

Level sensors or other control equipment for start, stop and alarm.

CT installation

The pump should be positioned low in the dry pit for effective drainage.

Bolt the base stand to the concrete base by means of four grouted-in anchor bolts.

Bolt the pump to the stand.

Check that the pump is vertical.

Connect the motor cable, suction line and discharge line.

Make sure that the weight of the pump does not bear on the system piping.

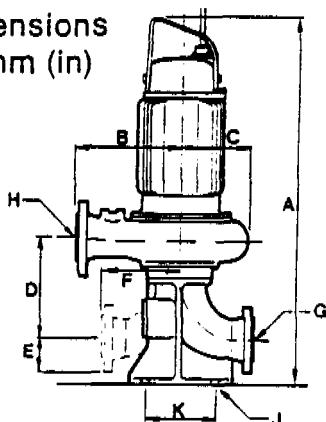
NOTE! The risk of freezing is particularly great with this installation.

Consult your nearest Flygt representative regarding:

- sizing of sump, pumping station and access frame.
- choice of peripheral equipment.
- other problems in connection with installation.

CT

All dimensions
are in mm (in)



	A	B	C	D	E	F	Gdiam.	Hdiam.	Jdiam.	K
3101 LT	1137 (44.3)	290 (11.3)	184 (7.2)	348 (13.6)	142.5 (5.6)	250 (9.8)	150 (5.9)*	150 (5.9)*	23 (0.9)	300 (11.7)
3101 MT	1022 (39.9)	285 (11.1)	178 (6.9)	280 (10.9)	115 (4.5)	200 (7.8)	100 (3.9)*	100 (3.9)*	23 (0.9)	220 (8.6)
3101 D	1022 (39.9)	285 (11.1)	178 (6.9)	280 (10.9)	115 (4.5)	200 (7.8)	100 (3.9)*	100 (3.9)	23 (0.9)	220 (8.6)
3126 LT	1368 (53.4)	350 (13.7)	217 (8.5)	450 (17.6)	171.5 (6.7)	300 (11.7)	200 (7.8)**	150 (5.9)*	23 (0.9)	360 (14.0)
3126 MT	1251 (48.9)	310 (12.0)	214 (8.3)	372 (14.5)	142.5 (5.6)	250 (9.8)	150 (5.9)*	150 (5.9)*	23 (0.9)	300 (11.7)
3126 HT (curve 461-467)	1100 (42.9)	310 (12.0)	202 (7.9)	264 (10.3)	115 (4.5)	200 (7.8)	100 (3.9)*	100 (3.9)*	23 (0.9)	220 (8.6)
3126 D	1309 (51.0)	310 (12.0)	214 (8.3)	377 (14.7)	142.5 (5.6)	250 (9.8)	150 (5.9)*	150 (5.9)*	23 (0.9)	300 (11.7)

* Flange as per SMS 342, DIN 2533 or BS 4622:1970 table 11

** Flange as per SMS 342, DIN 2532 or BS 4622:1970 table 11

Electrical connections

All electrical work shall be carried out under the supervision of an authorized electrician. Local codes and regulations shall be complied with.

Check that the main (line) voltage and frequency agree with the specifications on the pump data plate.

The motor can be connected for different voltages as shown on the data plate.

Under no circumstances may starter equipment be installed in the pump pit.

Install the motor cable and the control cable as illustrated in the figure.

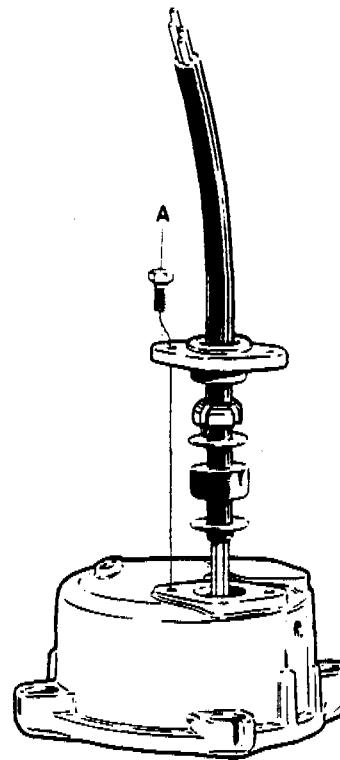
To avoid leakage into the pump, check:

- that the cable entry seal sleeve and washers conform to the outside diameter of the cable. See the parts list.
- that the outer jacket on the cable is not damaged. When refitting a cable which has been used before, always cut off a short piece of the cable so that the cable entry seal sleeve does not close around the cable at the same point again.

NOTE! For safety reasons, the earth lead should be approx. 100 mm (3.9") longer than the phase leads. If the motor cable is jerked loose by mistake, the earth lead should be the last lead to come loose from its terminal. This applies to both ends of the cable.

Connect the motor cable to the terminal board connections U1, V1, W1 and earth. Mount the closing links as illustrated. Check the direction of rotation, see "Before starting" (page 13). Transpose two phase leads if the impeller rotates in the wrong direction.

Cable entry



If star-delta start is used, both motor cables are connected as illustrated. Closing links are not used with star-delta start.

Connect the control leads from the motor control circuit if any to T1 and T2.

Make sure that the pump is correctly earthed (grounded).

Tighten the screws (A) so that the cable entry unit bottoms out.

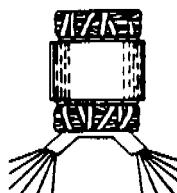
Remember that the starting surge with the direct-on line start can be up to six times higher than the rated current. Make sure that the fuses or circuit breakers are of the proper amperage.

The overload protection (motor protection breaker) shall always be set to the motor's rated current as given on the data plate.

The stator leads are colour coded as follows:

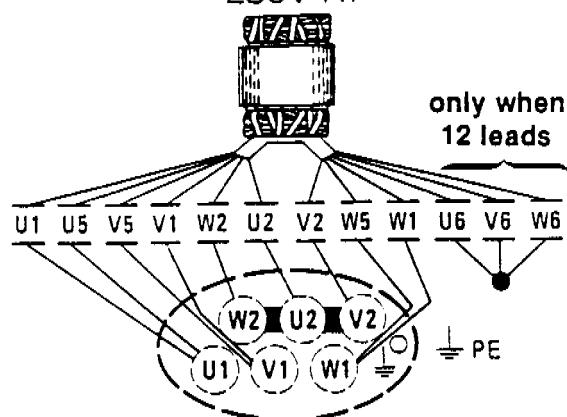
6 - 9 - 12

- U1 = Red
- V1 = Brown
- W1 = Yellow
- U2 = Green
- V2 = Blue
- W2 = Black
- U5 = Red
- V5 = Brown
- W5 = Yellow
- U6 = Green
- V6 = Blue
- W6 = Black



9- and 12-lead stator for:

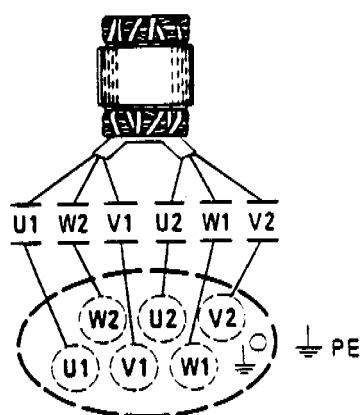
230VYII



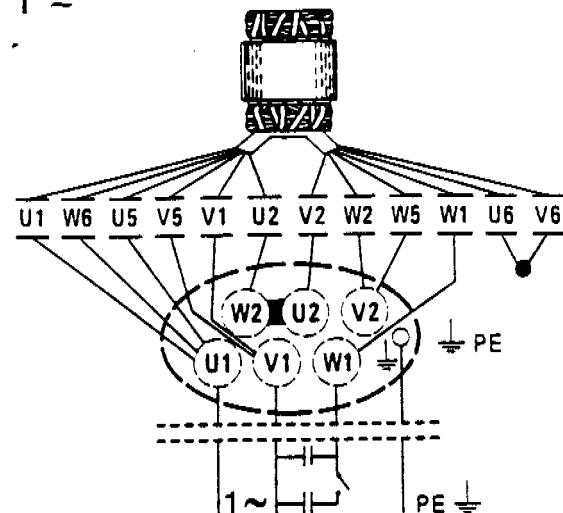
only when
12 leads

The stator leads are connected to the terminal board as follows:

6-lead stators

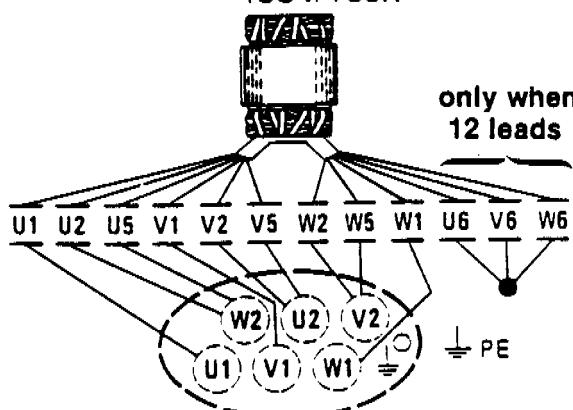


1 ~



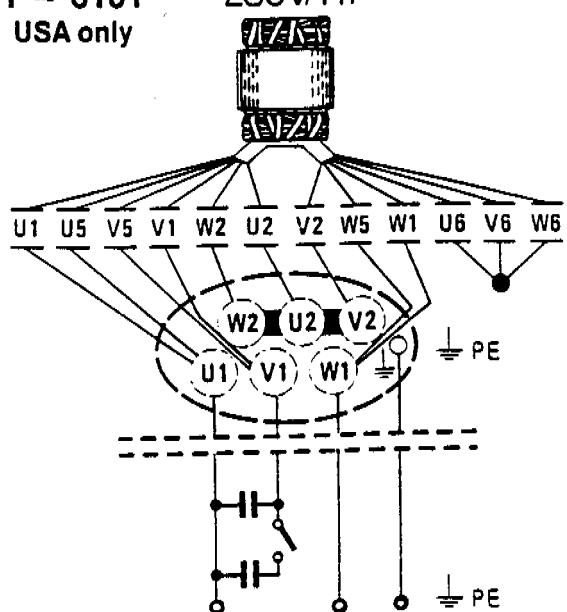
9- and 12-lead stator for:

460V/Yser.



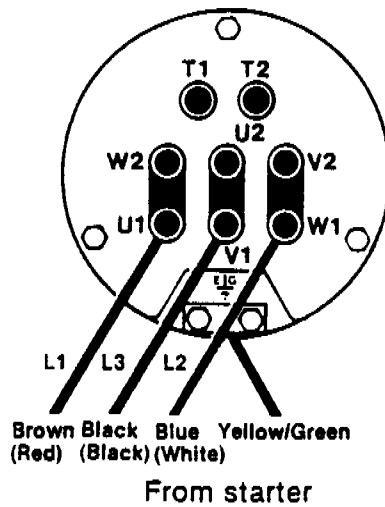
1 ~ 3101
USA only

230VYII

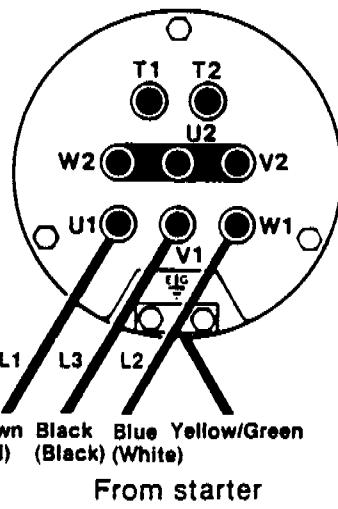


Terminal board

△ Delta connected



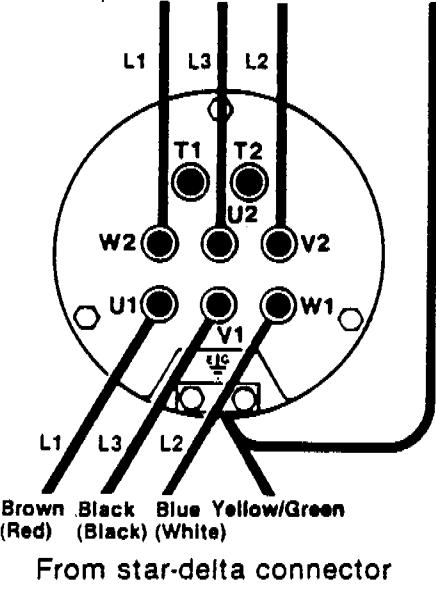
Y Star connected*



Y/△ Star-delta connection

From star-delta connector

Brown Black Blue
(Red) (Black) (White) Yellow/Green



Before starting

Check the oil level in the oil casing.

Remove the fuses or open the circuit breaker and check that the impeller can be rotated by hand.

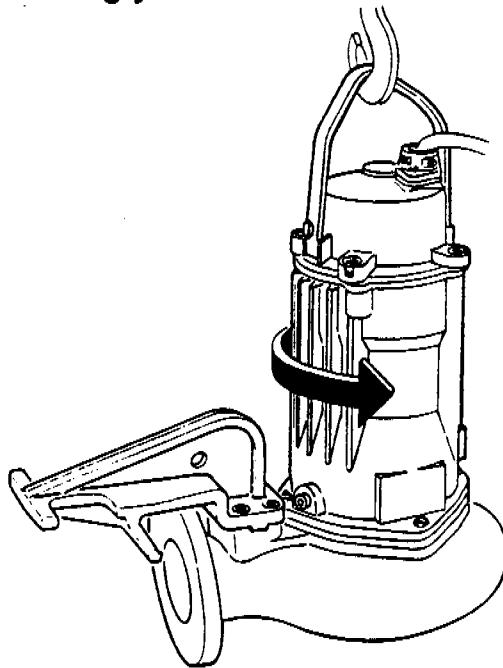
Check that the monitoring equipment (if any) works.

Check the direction of rotation. See the figure. The impeller shall rotate clockwise, as viewed from above. When started, the pump will jerk in the opposite direction to the direction in which the impeller rotates. **Beware!** The starting jerk on large pumps can be powerful!

In the case of CT installation, the direction of rotation is checked through the inlet elbow access cover.

The above measures are described under "Inspection".

Starting jerk



* NOTE! When connecting pumps which have a 9 or 12 lead stator for 440—460V Y ser., 60 Hz, no closing links should be used. For correct connection, see inside of junction box cover.

CARE AND MAINTENANCE

The letters in parentheses refer to the cutaway figure on page 22.

Safety precautions

Before starting work on the pump, make sure that the pump is isolated from the power supply and cannot be energized.

NOTE! This applies to the control circuit as well.

The following points are important in connection with work on the pump:

- make sure that the pump has been thoroughly cleaned.
- observe good personal hygiene.
- beware the risk of infection.
- follow local safety regulations.

The pump is designed for use in liquids which can be hazardous to health. In order to prevent injury to the eyes and skin, observe the following points when working on the pump:

- Always wear goggles and rubber gloves.
- Rinse the pump thoroughly with clean water before starting work.
- Rinse the components in water after disassembly.
- Hold a rag over the oil casing screw (OIL) and the inspection screw (INSP) when removing them. Otherwise, pressure that may have built up in the pump due to the leakage of pumped liquid into the pump may cause splatter into the eyes or onto skin.

Proceed as follows if you get hazardous chemicals

in your eyes:

- rinse immediately in running water for 15 minutes. Hold your eyelids apart with your fingers.
- contact an eye doctor.

on your skin:

- remove contaminated clothes.
- wash skin with soap and water.
- seek medical attention if required.

Inspection

Regular inspection and preventive maintenance ensure more reliable operation.

The pump should be inspected at least once a year, more frequently under severe operating conditions.

Under normal operating conditions, the pump should have a major overhaul in a service shop every three years.

This requires special tools and should be done by an authorized service shop.

When the pump is new or when the seals have been replaced, inspection is recommended after one week of operation.

Recommended inspections

Inspection of	Action
Visible parts on pump and installation	<p>Replace or fix worn and damaged parts.</p> <p>Make sure that all screws, bolts and nuts are tight.</p> <p>Check the condition of carrying handle, chains and wire ropes.</p> <p>Check that the guide bars are vertical.</p>
Pump casing and impeller	<p>Replace worn parts if they impair function.</p> <p>If the clearance between the impeller skirt and the pump casing exceeds 2 mm (0.08 in), see "Replacing the wear ring".</p> <p>Wear on the outlet flange on the pump casing usually causes corresponding wear on the discharge connection.</p>
Oil quantity	<p>WARNING. If the seal leaks, the oil casing may be under pressure. Hold a rag over the oil casing screw in order to prevent splatter. See "Safety precautions" for additional information.</p> <p>Check that the oil reaches up to the oil hole when the pump is lying down with the oil hole up.</p> <p>Add oil as needed. See "Changing the oil".</p>
Condition of the oil	<p>A check of the condition of the oil can show whether there has been any leakage. Maximum permissible leakage is 0.05 ml/h (0.0017 oz/h). (Note! Air/oil mixture can be confused with water/oil mixture).</p> <p>Insert a tube (or hose) into the oil hole. Cover the top end of the tube and take up a little oil from the bottom.</p> <p>Change the oil if it contains too much water, i.e., is heavily emulsified (cream-like), or if the water has settled out. See "Changing the oil". Check again one week after changing the oil.</p> <p>If the oil contains too much water again, the fault may be:</p> <ul style="list-style-type: none">— that an oil screw (OIL) is not sufficiently tight.— that an oil screw O-ring or its sealing surface is damaged.— that an O-ring (I) or its sealing surface is damaged.— that the lower seal (H) is damaged. Contact a Flygt service shop.

Inspection of	Action
Liquid in the stator casing	<p>WARNING. If there has been leakage, the stator casing may be under pressure. Hold a rag over the inspection screw to prevent splatter. See "Safety precautions" for additional information.</p>
	<p>Remove the inspection screw (INSP) and its O-ring. Tilt the pump so that any liquid in the stator casing can run out through the hole.</p>
	<p>If there is water in the stator casing, the cause may be:</p> <ul style="list-style-type: none"> <li data-bbox="745 557 1562 599">— that the inspection screw is not sufficiently tight. <li data-bbox="745 599 1562 674">— that the inspection screw O-ring or its sealing surface is damaged. <li data-bbox="745 674 1562 716">— that an O-ring (D, E) is damaged. <li data-bbox="745 716 1562 757">— that the cable entry is leaking.
	<p>If there is oil in the stator casing, the cause may be:</p> <ul style="list-style-type: none"> <li data-bbox="745 814 1562 889">— that the inner seal (G) is damaged. Contact a Flygt service shop. <li data-bbox="745 889 1562 930">— that an O-ring (F) is damaged.
Cable entry	<p>If the cable entry leaks:</p> <ul style="list-style-type: none"> <li data-bbox="745 995 1562 1049">— check that the entry is tightened so it bottoms out. <li data-bbox="745 1049 1562 1124">— cut a piece of the cable off so that the seal sleeve (C) closes around a new position on the cable. <li data-bbox="745 1124 1562 1165">— replace the seal sleeve (C). <li data-bbox="745 1165 1562 1272">— check that the seal sleeve (C) and the washers (B) conform to the outside diameter of the cables.
Cables	<p>Replace the cable if the outer jacket is damaged. Make sure that the cables do not have any sharp bends and are not pinched.</p>
Level sensors or other level equipment	<p>Check function. Clean, adjust, replace or repair damaged level sensing equipment. Follow the instructions for the level sensing equipment in question.</p>
	<p>Note! The level sensor contains a mercury switch. Damaged sensors should therefore be disposed of in a proper manner.</p>
Starter equipment	<p>If faulty, contact an electrician.</p>
Monitoring equipment (should be checked often)	<p>Follow the instructions for monitoring equipment.</p> <p>Check:</p> <ul style="list-style-type: none"> <li data-bbox="745 1821 1562 1863">— signals and tripping function. <li data-bbox="745 1863 1562 1917">— that relays, lamps, fuses and connections are intact.

Rotation direction
of pump
requires voltage)

Transpose two phase leads if the impeller does not rotate clockwise as viewed from above. Rotation in the wrong direction reduces the capacity of the pump and the motor may be overloaded. Check the direction of rotation every time the pump is reconnected.

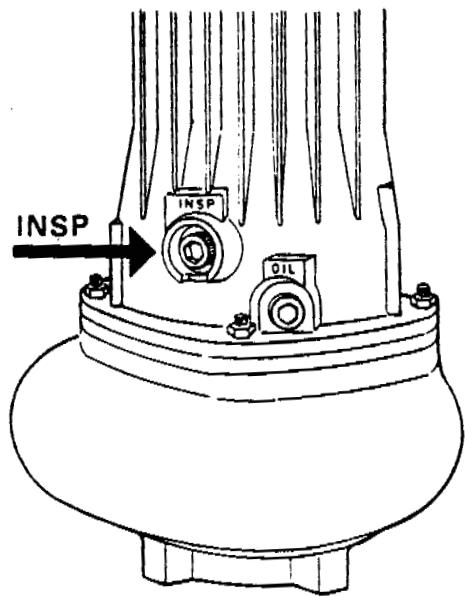
Pipes, valves and other
peripheral equipment

Repair faults and notify supervisor of any faults or defects.

Insulation resistance
in the stator

Use insulation tester. With a 1000 V-DC megger the insulation between the phases and between any phase and earth (ground) should be $> 1 \text{ M}\Omega$.

Inspection screw



Changing the oil

WARNING. If the seal leaks, the oil casing may be under pressure. Hold a rag over the oil plug to prevent splatter.

Lay the pump on its side on a bench or over two supports.

Remove the screw (OIL) and its O-ring from one of the oil holes.

Turn the pump so that the oil hole faces downwards.

It is easier to drain the oil if the other oil hole screw is also removed.

Fill with 1.0 litre (1.1 US quarts) of new oil in 3101 and 2.3 litres (2.4 US quarts) in 3126. Always replace the gaskets under the oil casing screws. Place the screws back in. Tightening torque 10—20 Nm (7.5—15 ft lb).

Use the following oil or their equivalent:

BP, Energol TOU 10W-30

Castrol, Castrolite 10W-30

Esso Extra Motor Oil 10W-30

Gulf Multi G 10W-30

Mobil Delvac Oil 1210

 Delvac special 10W-30

Shell, Tractor Oil Universal 10W-30

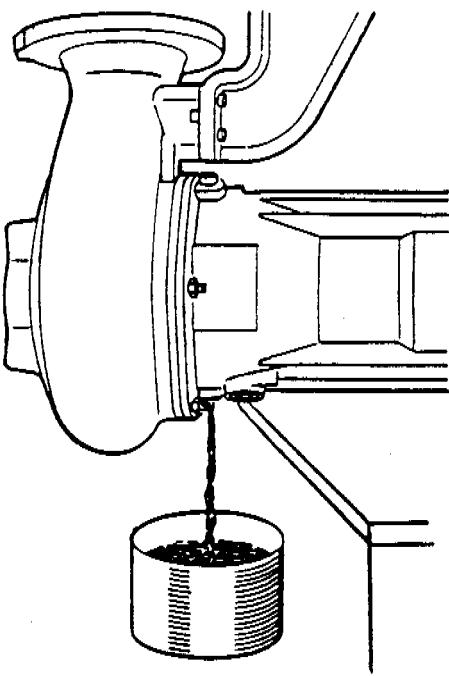
 Tellus T Oil 27

 Shell Clavus Oil 27

Texaco Havoline Motor Oil 10W-40

Mobil Whiterex 309 or an equivalent paraffin oil is recommended for raw or clean water pumping.

Draining the oil



Replacing the wear ring

When the clearance between the impeller skirt and the pump casing exceeds 2 mm (0.08 in), one or more of the following replacements must be made.

Replacing the wear ring in the pump casing (Q).

Disconnect and lift off the motor section from the pump casing.

Knock out the wear ring using a chisel.

Drive in the new wear ring. Use a rubber mallet or wooden block to prevent deformation.

The work will proceed more easily if the pump casing is first heated and/or the wear ring cooled.

Replacing the impeller

See below.

Assembly

Before assembling the pump, check the O-ring (K) and fit it in place.

Replacing the impeller

Removing the impeller

WARNING! Worn impellers often have very sharp edges.

Remove nuts (R) and lift the motor section off of the pump casing (O).

Lay the motor section on its side.

Remove impeller screw (N).

Remove washer (M).

Pull off the impeller.

Use impeller puller according to table below.

Do not pry off the impeller, since it can easily be damaged.

Installing the impeller

Make sure that the end of the shaft is clean and free of burrs. Polish off any flaws.

Clean and oil all sealing surfaces and O-rings.

Check:

- that the key (L) is seated in the keyway on the shaft.

Grease end of shaft and impeller hub.

Place washer (M) on the impeller screw.

Press the impeller onto the shaft with the impeller screw.

Tightening torque for 3101 50 Nm (35 ft lb), for 3126 80—100 Nm (60—72 ft lb).

Check that the impeller is firmly seated.

Check that the impeller can be rotated by hand.

Fit the motor section to the pump casing (O). Make sure that the pump casing has the right orientation.

Don't forget the O-ring (K).

Impeller pullers

Pump	Curve no. (stated on the data plate)	Puller no.
3101 LT	410—412	295 72 02
	440—442	249 92 02
	MT	430—435
	HT	252—254
	D	470
		472—478
3126 LL	410—412	249 92 01
	LT	441—442
	MT	430—435
	HT	250, 461, 465, 467 262, 263 254—259
	HS	466, 468
	D	470—476

Replacing the impeller of HS 3126

Removing the impeller (HS 3126)

WARNING! Worn impellers often have very sharp edges.

Lay the pump on its side.

Remove nuts (3).

Remove lower diffuser (10).

Remove impeller screw.

Pull off the impeller by tightening screw (5) into the threaded washer (12).

Installing the impeller (HS 3126)

Make sure that the end of the shaft is clean and free of burrs. Polish off any flaws.

Grease end of shaft and impeller hub.

Press the impeller onto the shaft with the impeller screw.

Tighten the impeller screw.

Tightening torque 75 Nm (55 ft lb).

Adjusting the impeller (HS 3126)

Screw the adjusting nuts (3) down toward the bottom of the studs (4).

Press the lower diffuser (10) against the impeller.

Screw the adjusting nuts (3) so that they lie flush against the lower diffuser.

Back off all adjusting nuts another half-turn (counter-clockwise).

Place the lower nuts (3) on the studs.

Tighten the lower nuts (3) evenly all around.

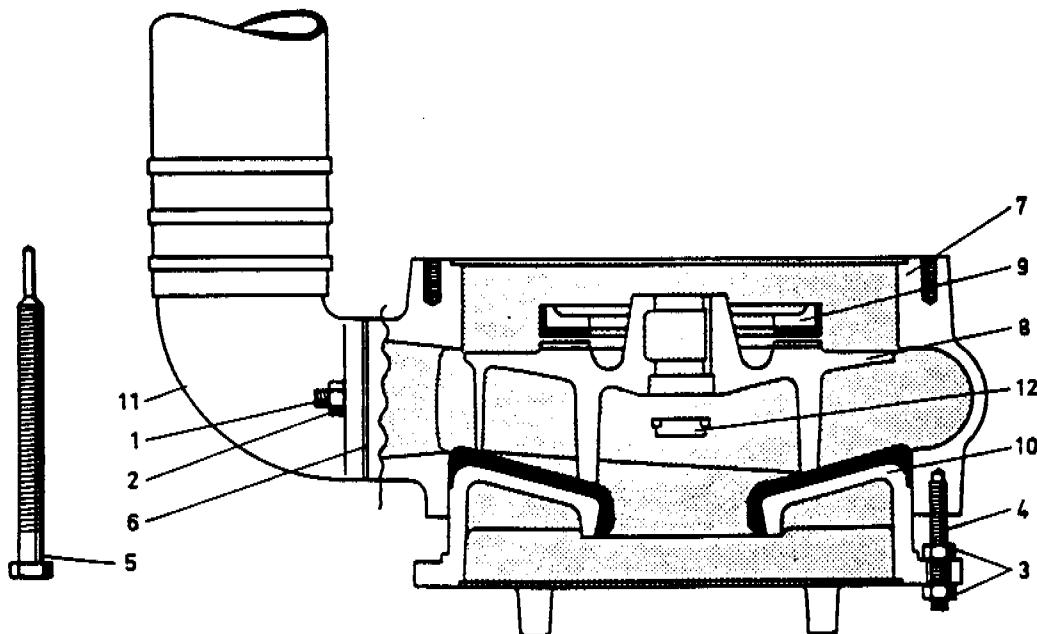
The clearance between the impeller and the lower diffuser shall be as little as possible.

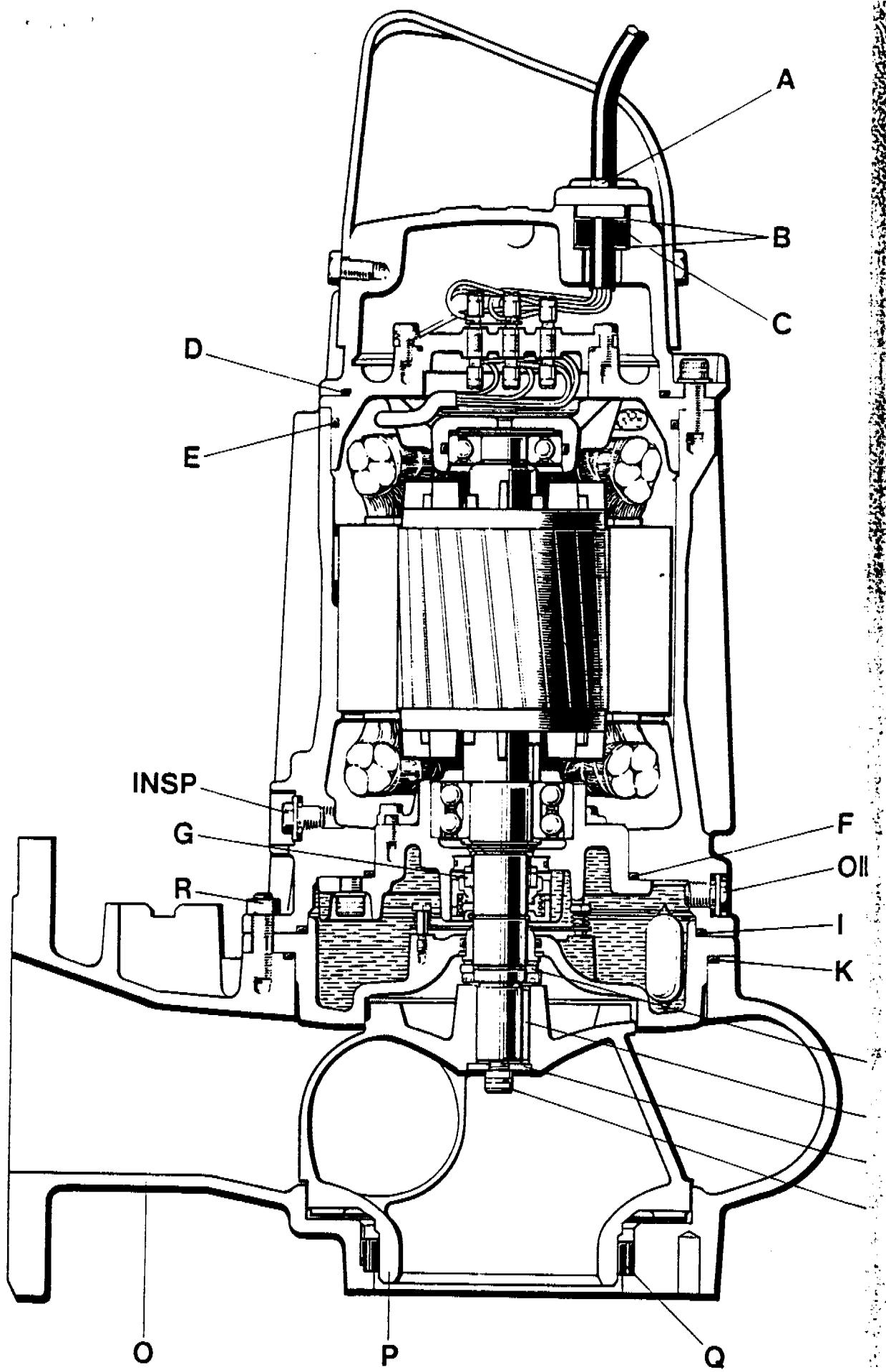
Check that the impeller can easily be rotated by hand.

In order for the pump to perform at maximum capacity, the impeller must be adjusted regularly.

More extensive repairs require special tools and should be carried out by an authorized service technician.

HS 3126





ACCESSORIES AND TOOLS

Level sensor

Flygt supplies level sensors suited for different liquid densities and with different cable lengths. See separate brochure.

Start and control equipment

Flygt has suitable start and control equipment for the pump. Contact Flygt for further information.

TOOLS

The following tools are required in order to perform the necessary care and maintenance of the pump:

Order No.	Description
84 13 87	Socket, n = 13 mm
84 13 90	Socket, n = 17 mm
84 13 92	Socket, n = 19 mm
84 14 28	Adjustable wrench
84 15 55	Extention bar
84 15 61	Swivel handle 1/2" <input checked="" type="checkbox"/>
84 15 66	Torque wrench, 0—137 Nm
84 16 73	Screwdriver
303 53 00	Allen key for impeller screw (3101), n = 8 mm
309 32 00	Allen key for impeller screw (3126), n = 10 mm

For impeller pullers see table page 20.

For further information on tools, see Flygt's Tool Catalogue.

FAULT TRACING (TROUBLESHOOTING)

A universal instrument (VOM), a test lamp (continuity tester) and a wiring diagram are required in order to carry out fault tracing on the electrical equipment.

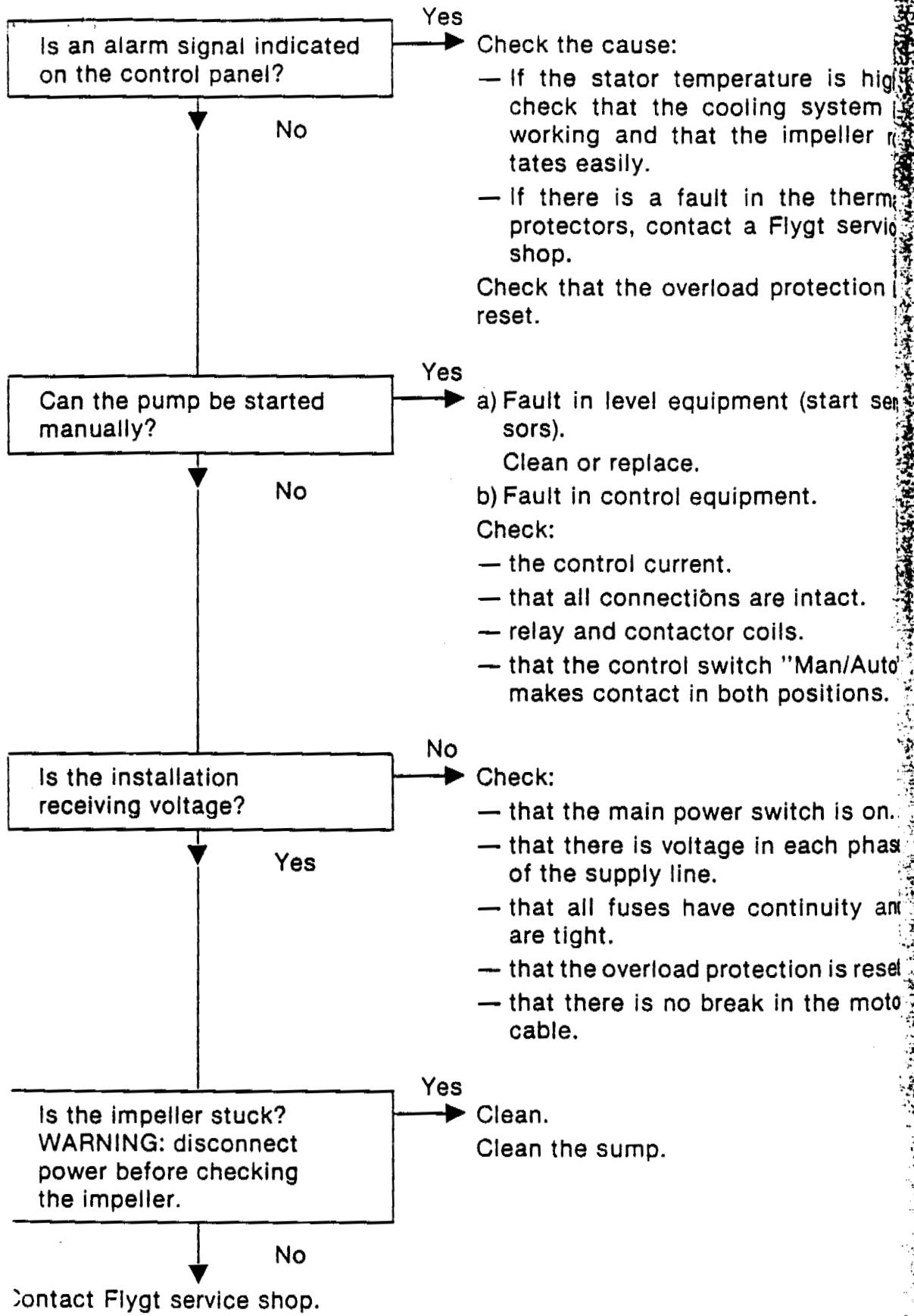
Fault tracing shall be done with the power supply disconnected and locked off, except for those checks which cannot be performed without voltage.

Always make sure that there is no one near the pump when the power supply is turned on.

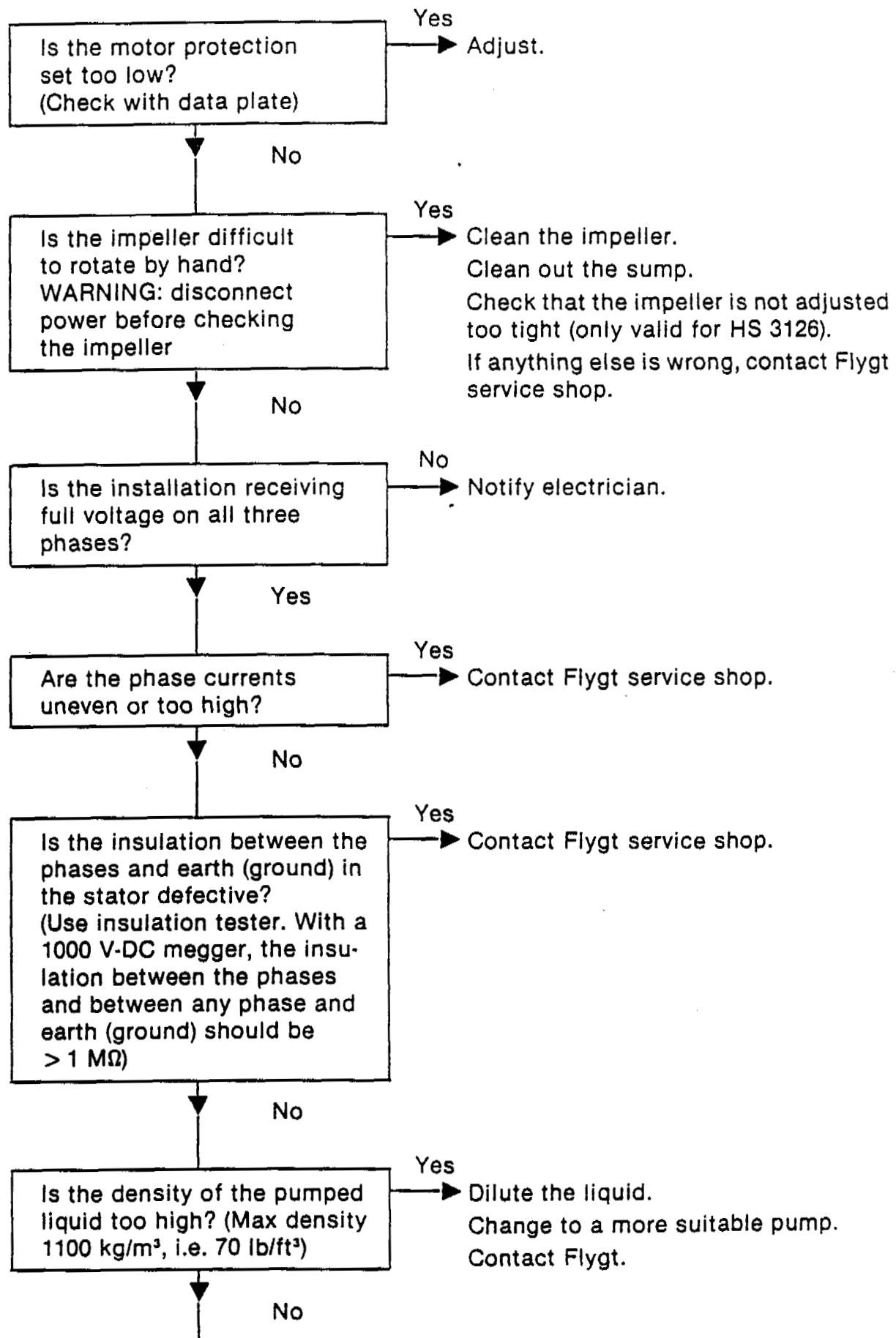
Use the following checklist as an aid to fault tracing. It is assumed that the pump and installation have formerly functioned satisfactorily.

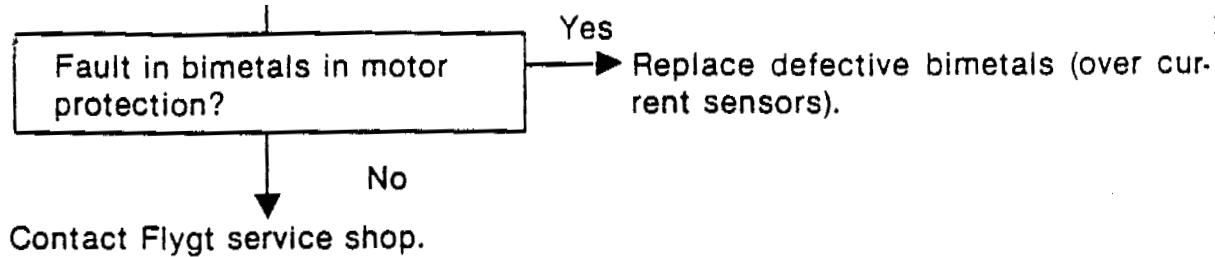
Electrical work shall be performed by an authorized electrician.

Follow local safety regulations and observe recommended safety precau-

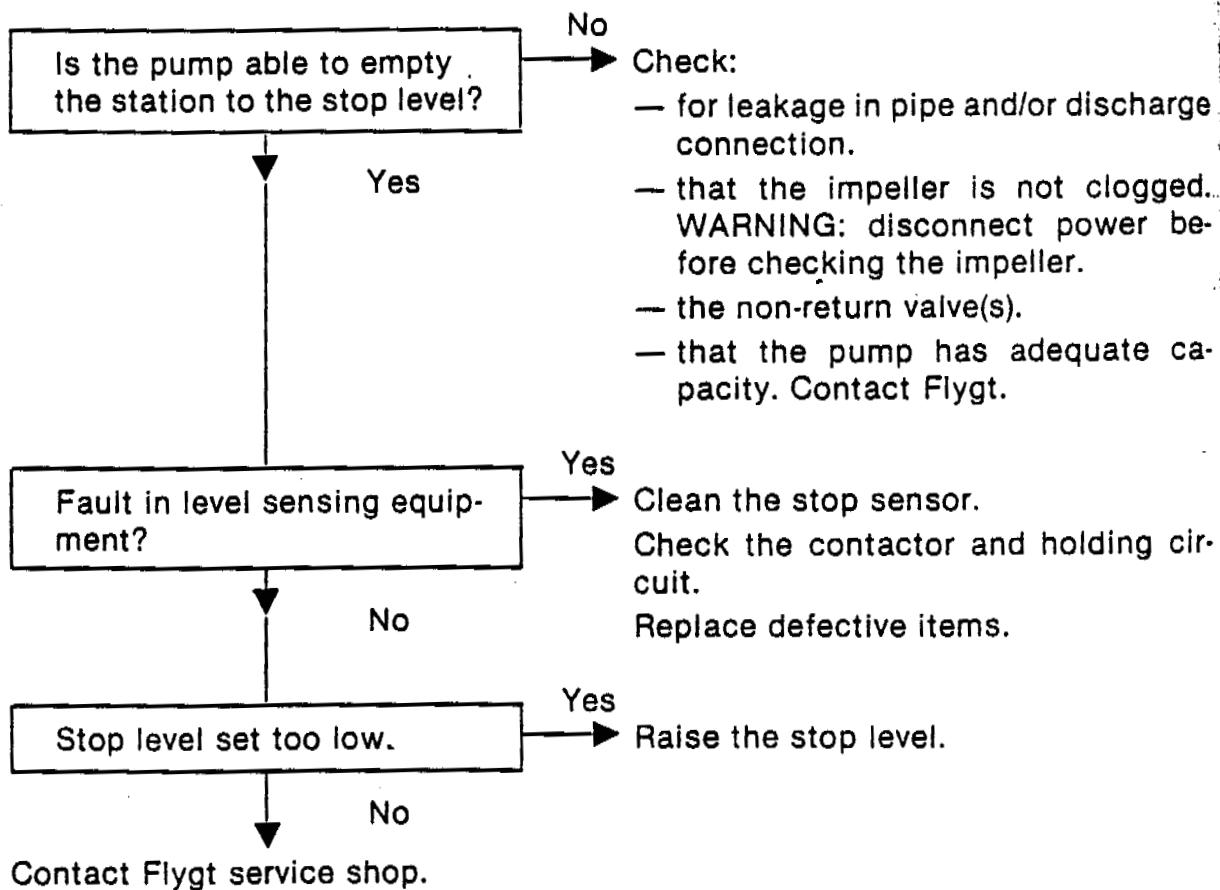


2. Pump starts but motor protection trips

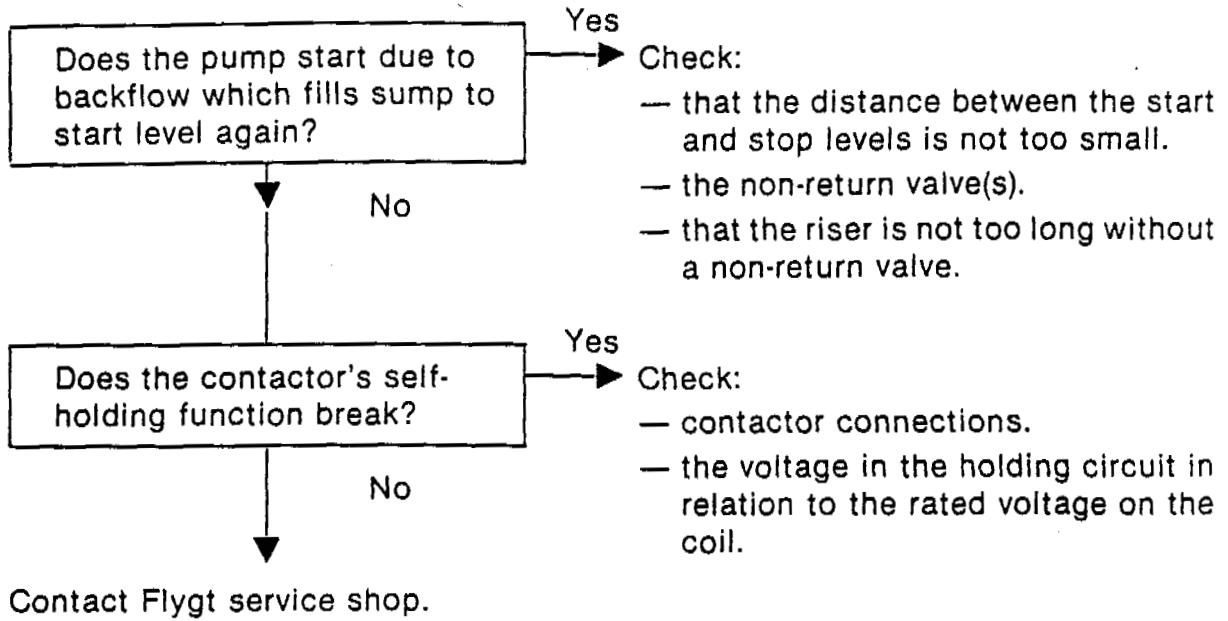




3. The pump does not stop



4. The pump starts-stops-starts in rapid sequence



5. Pump runs but delivers too little or no water

Check:

- direction of rotation of pump, see "Before starting".
- that valves are open and intact.
- that pipes, impeller and strainer are not clogged.
- that the impeller rotates easily.
- that the suction lift has not been altered.
- for leakage in the pump installation.
- for wear on wear ring, impeller, pump casing/flange, suction bottom.

See also under "Inspection".

Do not override the motor protection repeatedly if it has tripped.

Detaljlista

Parts list

Ersatzteilliste



Liste des pièces de rechange

3126.180

32/67

Uppge pumpens produktnummer och tillverkningsnummer vid reservdelsbeställning.
Använd inte pos.nr utan detaljnr vid reservdelsbeställning och lagerhållning.

Tillverkarens garantibestämmelser gäller endast under förutsättning att Flygts original-delar används samt att reparations- och servicearbetet utförs av en av Flygt auktoriserad verkstad.

Rätt till ändringar i utförande och specifikationer förbehålls.

Garantivillkoren förutsätter att pumpen används enligt instruktionen och i applikationer för vilka den är avsedd.

State product No. and serial No. of pump when ordering parts.
Do not use item Nos. when ordering spare parts or for stock records.

The provision of the manufacturer's guarantee applies only under the condition that genuine Flygt spare parts are used and that the repair and service work is carried out by a workshop authorized by Flygt.

The manufacturer reserves the right to alter specification and design.

The terms of the guarantee apply only providing the pump is used in accordance with the instructions and in applications for which it is intended.

Bei Bestellung bitte die Produkt Nr. und die Fabrikations Nr. der Pumpe angeben.
Die Pos.-Nummern sind nicht für die Lagerorganisation vorgesehen.

Die Garantiebestimmungen des Herstellers gelten nur unter der Voraussetzung, daß Original Flygt-Ersatzteile verwendet werden, und daß Reparatur- und Wartungsarbeiten von einer von Flygt autorisierten Werkstatt durchgeführt werden.

Änderungen in bezug auf Ausführung und Specifikationen vorbehalten.

Die Garantiebedingungen voraussetzen daß die Pumpe laut der Instruktion und in Applikationen, zu welchen sie bestimmt ist, verwendet wird.

Pour toute commande de pièces de rechange, prière d'indiquer le N° de produit et le N° de série de la pompe à laquelle ces pièces sont destinées.

Ne pas utiliser les numéros de repérage lors de la commande de pièces de rechange, ou sur les fiches de stocks. Utiliser les numéros de pièces.

La garantie du constructeur n'est valable que dans la mesure où sont exclusivement utilisées des pièces de rechange Flygt d'origine et où les réparations et interventions sont assurées par un atelier agréé par Flygt.

Nous nous réservons le droit de modifier l'exécution et les spécifications de nos produits.

La garantie n'est valable que dans la mesure où la pompe est utilisée conformément aux directives du constructeur et uniquement affectée aux usages auxquels elle est destinée.

LT	= Lågtrycksutförande Niederdruckausführung	Low-head version (Curve No. 410—412, 441, 442.) Modèle basse pression
MT	= Medeltrycksutförande Mitteldruckausführung	Medium-head version (Curve No. 430—435.) Modèle pression moyenne
HT	= Högtrycksutförande Hochdruckausführung	High-head version (Curve No. 250—259, 461—465, 467) Modèle haute pression
D	= Virvelhjulsutförande Wirbelradausführung	Vortex impeller version (Curve No. 470—476.) Version roue vortex
HS	Slitstarkt utförande Verschleissfeste Ausführung	Heavy duty version (Curve No. 466, 468) Version renforcée
F	= Flytgödselutförande Gülleförderung	Liquid manure version (Curve No. 490—492.) Version lisier
LL	= Lyftpumputförande Hebepumpausführung	Liftpump version (Curve No. 410—412.) Modèle pompe de levage
PL	= Propellerlyftpump Hebepump, Propellerausführung	Liftpump, propeller version (Curve No. 495,496) Modèle pompe de levage, hélice

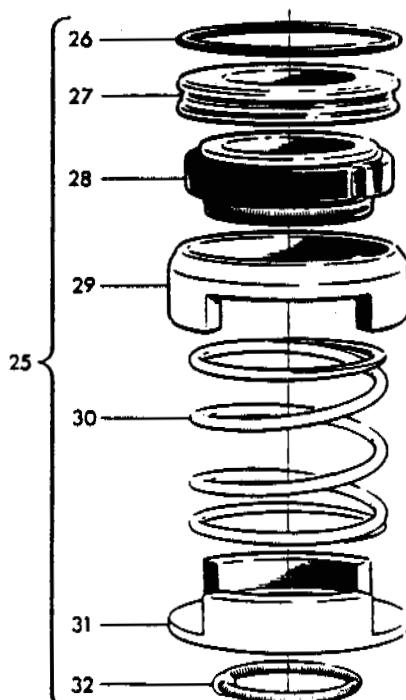
Pumpaggregat 3126.180
Pump types 3126.180
Pumpenaggregate 3126.180
Pompes 3126.180

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
1		PLATTKIL PASSFEDER	KEY CLAVETTE	1
	80 69 95	(8 × 7 × 45)		
	80 69 90	(8 × 7 × 25) for F-version		
2	80 95 30	Pinnskruv (M 12 × 55) Stiftschraube	Stud Goujon	6
3	81 41 04	6-kantskruv (M 8 × 20) Schraube	Screw Vis	9
4	81 41 52	6-kantskruv (M 12 × 20) Schraube	Screw Vis	2
5	81 73 86	Spärskruv (M 8 × 12) Schlitzschraube	Slotted screw Vis	2
6	82 00 70	Insexskruv (M 12 × 35) Innensechskantschraube	Allen screw Vis Allen	8
7	82 20 88	Drivskruv (4 × 5) Kerbnagel	Screw nail Vis autotaraudeuse	10
8	82 23 59	Mutter (M 12) Mutter	Nut Ecrou	6
9	82 35 16	Bricka (8.4 × 16) Scheibe	Washer Rondelle	7
10	82 44 15	Stödbricka (40 × 50 × 2.5) Scheibe	Washer Rondelle	1
11	82 48 65	Fjäderbricka (12.2) Federring	Spring washer Rondelle Grower	8
13	82 59 06	Spärring (SgA 40) Nutring	Retaining ring Circlip	1

Pos nr Item No. Pos.-Nr. N° de repérage	Detail nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
		O-RING O-RING	O-RING ANNEAU TORIQUE	
12	82 73 90	19.2 x 3.0		3
14	82 80 84	74.2 x 5.7		1
15	82 74 74	104.5 x 3.0		1
16	82 74 85	159.3 x 5.7		1
17	82 74 92	194.3 x 5.7		1
18	82 74 94	209.3 x 5.7		1
19	82 74 97	239.3 x 5.7		1
20	82 74 98	249.3 x 5.7		1
21	83 15 71	Kullager Kugellager	Ball bearing Roulement à billes	1
22	83 36 93	Kullager Kugellager	Ball bearing Roulement à billes	1
23	387 68 00	Dataskylt Datenschild	Data plate Plaque signalétique	2
24		BRICKA SCHEIBE	WASHER RONDELLE	1
	338 13 01			
	427 04 00	För kurva 254—259 Für Kurve Nr. 254—259	For curve no. 254—259 Pour courbe N° 254—259	

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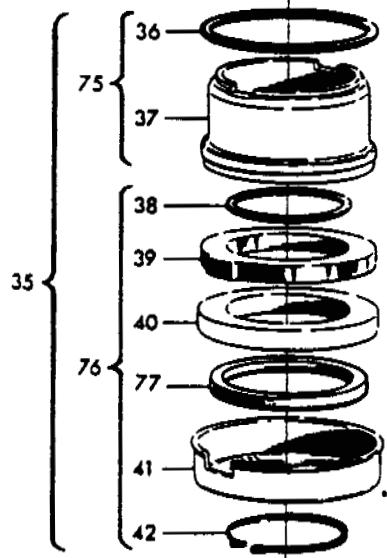
Pos nr Item No. Pos.-Nr. Nº de repérage	Detalj nr Part No. Bestell-Nr. Nº de pièce	Benämning Bezeichnung Dichtungsring,stationärer Anneau fixe	Denomination Désignation	Antal Quantity Anzahl Nombre
25	302 09 04	ÖVRE PLANTÄTNINGSENHET SEAL UNIT, UPPER DICHTUNGSEINHEIT, OBERE JOINT MÉCANIQUE, SUP.		1
26	82 74 64	O-ring (54.5 x 3) O-Ring	O-ring Anneau torique	(1)
27*		Släspring	Seal ring, stationary	(1)
28*		Tättningsenhet Dichtungseinheit	Seal unit Joint mécanique	(1)
29*		Klämhylsa Klemmhülse	Clamping sleeve Douille de serrage	(1)
30*		Tryckfjäder Druckfeder	Compression spring Ressort de compression	(1)
31*		Stoppring Hemmring	Stop ring Anneau d'arrêt	(1)
32	301 19 09	Dragfjäder + kula Hemmfeder	Stop spring Ressort d'arrêt	(1)
• Levereras ej separat Nicht separat geliefert		Not delivered separately N'est pas livré séparément		



33	302 21 00	Tryckfjäder Druckfeder	Compression spring Ressort de compression	4
34	302 22 00	Bricka Scheibe	Washer Rondelle	1

Pos nr Item No. Pos.-Nr. Nº de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung Désignation	Denomination Désignation	Antal Quantity Anzahl Nombre
35	302 24 03	NEDRE PLANTÄTNINGSENHET SEAL UNIT, LOWER DICHTUNGSEINHEIT, UNTERE JOINT MÉCANIQUE, INF.		1
75		Stat. tätn.ringenhet Stat. Dichtungsringeinheit	Seal unit, lower Anneau fixe	(1)
36	82 77 78	O-ring (43 x 5) O-Ring	O-ring Anneau torique	(1)
37*		Tätningsring Dichtungsring	Seal ring Joint	(1)
76		Rot. tätningsringenhet Rot. Dichtungsringeinheit	Rot. seal ring unit Anneau tournant	(1)
38	82 75 17	O-ring (26.2 x 3) O-Ring	O-ring Anneau torique	(1)
39*		Tätningsring Dichtungsring	Seal ring Joint	(1)
40*		Bricka Scheibe	Washer Rondelle	(1)
77*		Tryckfjäder, gummi Compression spring, rubber Druckfeder, Gummi Ressort de compression, caoutchouc		(1)
41*		Ändbricka Scheibe	End washer Rondelle	(1)
42	82 61 00	Spårring (SgA 30) Nutring	Retaining ring Circlip	(1)

* Levereras ej separat
Nicht separat geliefert
Not delivered separately
N'est pas livré séparément



Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
43		SLADD LEITUNG	CABLE . 8 m, 20 m CABLE	
		Manöversladd Steuerleitung	Control cable Câble auxiliaire	
	94 18 50		HO7RN-F, 2 x 1.5 mm ²	0—1
		Motorsladd Motorleitung	Motor cable Câble	
	94 18 52		HO7RN-F, 4 x 2.5 mm ²	1—2
	94 18 53		HO7RN-F, 4 x 4 mm ²	1—2
		För F-pump Für F-Pump	For F-pump Pour F-pompe	
	94 17 72		RDOT, 7 x 2.5 mm ² + 2 x 1.5 mm ²	1
44	426 78 00	Skyddsledarbricka Erdungsscheibe	Earthing washer Rondelle de terre	2
45	426 80 00	Kopplingsplintenhet Schaltbrett	Terminal board Plaque à bornes	1
46	428 22 01	Inspektionsskruv Inspektionsschraube	Inspection screw Vis d'inspection	3
47	303 82 00	Täckbricka Scheibe	Washer Rondelle	1
48	306 73 00	6-kantskruv, spec. Schraube	Screw Vis	4

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
52		Spec. bricka Scheibe	Washer Rondelle	
	82 40 84	diam. 10—12 mm (0.39"—0.47")		0—2
	82 40 55	diam. (12)—14 mm (0.47"—0.55")		2—4
	82 40 57	diam. (14)—18 mm (0.55"—0.71")		2—4
	82 40 59	diam. (18)—20 mm (0.71"—0.79")		2—4
	82 40 76	diam. (20)—22 mm (0.79"—0.87") F-pump		2
	82 40 79	diam. (26)—28 mm (1.02"—1.10")		2
53		Tätningshylsa Dichtungshülse	Seal sleeve Manchon	
	84 35 66	diam. 10—12 mm (0.39"—0.47")		0—1
	84 35 59	diam. (12)—14 mm (0.47"—0.55")		1—2
	84 35 32	diam. (14)—16 mm (0.55"—0.63")		1—2
	84 35 33	diam. (16)—18 mm (0.63"—0.71")		1—2
	84 35 34	diam. (18)—20 mm (0.71"—0.79")		1—2
	84 35 51	diam. (20)—22 mm (0.79"—0.87") F-pump		1
	84 35 54	diam. (26)—28 mm (1.02"—1.10")		1
54	413 70 00	Införingsfläns, 10—20 mm Cable entry flange, 0.39"—0.79" Leitungseinführungsflansch Bride d'entrée		1—2
55		Klamma Klamme	Clamp Collier	
	398 98 00	diam. 10—12 mm (0.39"—0.47") vit, white, weiss, blanc		0—1
	398 98 01	diam. (12)—14 mm (0.47"—0.55") gul, yellow, gelb, jaune		1—2
	398 98 02	diam. (14)—16 mm (0.55"—0.63") röd, red, rot, rouge		1—2
	398 98 03	diam. (16)—18 mm (0.63"—0.71") blå, blue, blau, bleu		1—2
	398 98 04	diam. (18)—20 mm (0.71"—0.79") grön, green, grün, verte		1—2
49		SLADDINFÖRING FÖR F-PUMP CABLE ENTRY FOR F-PUMP LEITUNGEINFÜHRUNG FÜR F-PUMPE ENTRÉE DE CABLE POUR F-POMPE		
	394 77 10	20—22 mm (0.79"—0.87")		1
	394 77 11	26—28 mm (1.02"—1.10")		1
50	81 73 63	Spårskruv (M5 x 30) Schlitzschraube	Slotted screw Vis	(2)
51	82 23 55	Mutter (M 5) Mutter	Nut Ecrou	(2)
54*		Fläns Flansch	Flange Bride	(1)
55*		Klamma Klamme	Clamp Collier	(2)
10		Levereras ej separat Nicht separat geliefert	Not separately delivered N'est pas livré séparément	

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Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
56	308 83 00	Statorhus Statorgehäuse	Stator casing Logement de stator	1
57	308 84 00	Lagerhus, övre Lagergehäuse, oberes	Bearing casing, upper Boîtier de roulement, sup.	1
58		INFÖRINGSLOCK JUNCTION BOX COVER ANSCHLUSSDOSENDECKEL COUVERCLE		1
	308 85 00	För direktstart Für Direktstart	For direct starting Pour démarrage direct	
	308 85 01	För YD-start For star-delta starting Für YD-Start Pour démarrage étoile-triangle (YD)		
	308 85 04	För F-utförande Für F-Ausführung	For F-version Pour modèle F	
59	308 86 00	Bygel Tragbügel	Carrying handle Poingée	1
60		AXEL-ROTORENHET ROTOREINHEIT	SHAFT-ROTOR UNIT ARBRE-ROTOR COMPLET	1
	308 92 01	För Stator 30944xx Für Stator 30944xx	For stator 30944xx Pour stator 30944xx	
	308 92 02	För stator 42663xx Für Stator 42663xx	For stator 42663xx Pour stator 42663xx	
	309 54 01	För stator 30949xx Für Stator 30949xx	For stator 30949xx Pour stator 30949xx	

Pos nr Item No. Pos.-Nr. Nº de repérage	Detalj nr Part No. Bestell-Nr. Nº de pièce	Benämning Bezeichnung Bestell-Nr.	Denomination Désignation	Antal Quantity Anzahl Nombre
61		STATOR STATOR	STATOR STATOR	1
		50 Hz, 5.9 kW	60 Hz, 7.0 kW (9.4 hp)	
	309 44 28	190—200 VD	380/200—220 V	
	309 44 34	380/220 V	440/260 V	
	309 44 38	660/380 V	440—460 V△	
	309 44 44	400—440 V△	—	
	309 44 52	500—550 V△	575 V△	
	309 44 12	—	440—460/220—230 V, 230 V single phase 5.5 kW (7.4 hp)	
	309 44 58	660 V△	—	
	309 44 30	—	380 V△	
	309 44 32	350/200—208 V	400/230—240 V	
	309 44 35	346—350 V△	—	
	309 44 39	—	460V△	
	309 44 40	400 V△	400 V△	
		50 Hz, 7.4 kW	60 Hz, 8.3 kW (11.0 hp)	
	309 49 28	190—200 V△	—	
	309 49 34	380/220 V	—	
	309 49 38	660/380 V	—	
	309 49 44	400—440 V△	—	
	309 49 52	500—550 V△	—	
	309 49 58	660 V△	—	
	309 49 12	—	440—460/220—230 V	
	309 49 30	—	380 V△	
	309 49 32	350/200 V—208 V	400/230—240 V	
	309 49 40	400 V△	400 V△	
		50 Hz, 4.7 kW	60 Hz, 5.5 kW (7.5 hp)	
	426 63 12	—	440—460/220—230 V	
	426 63 28	190—200 V△	200—220 V△	
	426 63 34	380/220 V	440/260 V	
	426 63 38	660/380 V	440—460 V△	
	426 63 44	400—440 V△	—	
	426 63 52	500—550 V△	575 V△	
	426 63 58	660 V△	—	
	426 63 30	—	380 V△	
	426 63 32	350/200 V—208 V	440/230—240 V	
	426 63 35	346—350 V△	—	
	426 63 40	400 V△	400 V△	

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
62		LAGERLOCK LAGERDECKEL	BEARING COVER CACHE-ROULEMENT	1
	309 00 00	För F-utförande Für F-Ausführung	For F-version Pour modèle F	
	400 76 00	Standard Standard	Standard Standard	
63	309 01 02 309 01 00	Lagerhus, nedre Lagergehäuse, unteres	Bearing casing lower Boîtier de roulement, inf.	1
64	409 76 00	Oljehus Ölgehäuse	Oil casing Bac à huile	1
65	397 33 00	Slitskydd för oljehus Wear cover for oil casing Verschleisschutz für Ölgehäuse Pièce d'usure pour bac à huile		1
66		6-KANTSKRUV SCHRAUBE	SCREW VIS	
	81 41 04	För införingsfläns For cable entry flange Für Leitungseinführung Pour bride d'entrée	10—20 mm	2—4
	81 41 55	För införingsfläns For cable entry flange Für Leitungseinführung Pour bride d'entrée	20—22 mm	2
67		INSEXS KRUV ALLEN SCREW INNENSECHSKANTSCHRAUBE VIS ALLEN		1
	82 11 98	M12 x 40, kurva 254—259	Curve no. 254—259	
		Kurve Nr. 254—259	Courbe N° 254—259	
	84 42 54	M12 x 40		
68	309 33 00	Tryckutjämnnare Druckausgleicher	Pressure equalizer Équilibrer de pression	1

Pos nr Item No. Pos.Nr N° de repérage	Detalj nr Part No. Bestell-Nr N° de pièce	Benämning Denomination Bezeichnung Désignation	Antal Anzahl	Quantity Curve No. Nombre	
			LT	MT, D	HT
			410-412 441, 442	430-435 470-476	461-465 467 250-259

69 PUMPHUS PUMP CASING
PUMPENGEHÄUSE VOLUTE

Med oborrad fläns
With undrilled flange
Flansch ohne Bohrungen
Avec bride non forée

309 25 00	DN 150 mm (6")	—	1	—	—
309 27 00	DN 150 mm (6")	1	—	—	—
309 59 00	DN 100 mm (4")	—	—	1	—
426 44 00	DN 100 mm (4")	—	1	—	—
429 60 00	DN 100 mm (4")	—	1*	—	—
309 26 00	DN 80 mm (3")	—	—	—	1

* Kurva Nr 470, 471 Curve No 470, 471
Kurve Nr 470, 471 Courbe No 470, 471

Fläns borrad för SMS 342 och DIN 2533
Flange drilled to SMS 342 and DIN 2533
Flansch gebohrt für SMS 342 et DIN 2533
Bride forée pour SMS 342 et DIN 2533

309 25 06	DN 150 mm	—	1	—	—
309 27 06	DN 150 mm	1	—	—	—
309 59 01	DN 100 mm	—	—	1	—
426 44 01	DN 100 mm	—	1	—	—
309 26 01	DN 80 mm	—	—	—	1

Fläns borrad för 1882 års norm
Flange drilled to 1882 standard
Flansch gebohrt für Norm Jahre 1882
Bride forée pour la norme de 1882

309 25 02	DN 150 mm	—	1	—	—
309 27 02	DN 150 mm	1	—	—	—
309 59 02	DN 100 mm	—	—	1	—
426 44 02	DN 100 mm	—	1	—	—
309 26 01	DN 80 mm	—	—	—	1

Fläns borrad för BS 4622:1970 Table 11
Flange drilled to BS 4622:1970 Table 11
Flansch gebohrt für BS 4622:1970 Table 11
Bride forée pour BS 4622:1970 Tableau 11

309 25 06	DN 150 mm	—	1	—	—
309 27 06	DN 150 mm	1	—	—	—
309 59 01	DN 100 mm	—	—	1	—
426 44 01	DN 100 mm	—	1	—	—
309 26 07	DN 80 mm	—	—	—	1

Pos nr Item No. Pos.Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Denomination Bezeichnung Désignation	Curve No. 410-412 430-435 461-465 250-259 441, 442 470-476 467	Antal Anzahl		Quantity Nombre	
				LT	MT, D	HT	HT

Fläns borrad för ANSI B16.1:1967 Table 5
 Flange drilled to ANSI B16.1:1967 Table 5
 Flansch gebohrt für ANSI B16.1:1967 Table 5
 Bride forée pour ANSI B16.1:1967 Table 5

309 25 06	DN 150 mm (6")	—	1	—	—
309 27 06	DN 150 mm (6")	1	—	—	—
309 59 05	DN 100 mm (4")	—	—	1	—
426 44 05	DN 100 mm (4")	—	1	—	—
309 26 05	DN 80 mm (3")	—	—	—	1

Pos nr Item No. Pos.Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Denomination Bezeichnung Désignation	Antal Anzahl	Quantity Nombre	
				LT	MT

70

PUMPHJUL, Kurva nr .. IMPELLER, Curve No..
 LAUFRAD, Kurve Nr .. ROUE, Courbe N°....

309 19 00	410, 50 Hz	1	—	—
309 21 00	411, 50—60 Hz	1	—	—
309 71 00	412, 50—60 Hz	1	—	—
391 36 00	441, 50 Hz	1	—	—
430 14 00	442, 50—60 Hz	1	—	—
309 03 00	430, 50 Hz	—	1	—
309 05 00	431, 50 Hz	—	1	—
430 15 00	432, 50—60 Hz	—	1	—
309 09 00	433, 50—60 Hz	—	1	—
309 11 00	434, 50—60 Hz	—	1	—
426 59 00	435, 50 Hz	—	1	—
430 13 00	461, 50—60 Hz	—	—	1
430 12 00	462, 50—60 Hz	—	—	1
430 11 00	463, 50—60 Hz	—	—	1
389 34 00	465, 50 Hz	—	—	1
379 29 00	467, 50 Hz	—	—	1
309 13 00	250, 50 Hz	—	—	1
427 06 10	254, 50 Hz	—	—	1
427 06 11	255, 50 Hz	—	—	1
427 06 12	256, 50 Hz	—	—	1
427 06 13	257, 50 Hz	—	—	1
427 06 14	258, 50—60 Hz	—	—	1
427 06 15	259, 50—60 Hz	—	—	1

Pos nr Item No. Pos.-Nr. N° de repérage	Detail nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
71		RING Kurva nr ... RING Kurve Nr ...	RING Curve No ... ANNEAU Courbe N°	1
	309 36 00		410—412, 441, 442	
	309 29 00		430—434	
	303 50 00		462, 463	
	309 34 00		250, 461, 465, 467	
	314 88 03	Mässing, Brass, Messing, Laiton	410—412, 441, 442	
	314 88 02	Mässing, Brass, Messing, Laiton	430—434	
	314 88 00	Mässing, Brass, Messing, Laiton	462, 463	
	314 88 04	Mässing, Brass, Messing, Laiton	250, 461, 465, 467	
	398 92 02	Mässing, Brass, Messing, Laiton	254—259	
72	81 41 54	6-kantskruv (M 12 × 25) Schraube	Screw Vis	4
73	82 75 01	O-ring (279,3 × 5,7) O-Ring	O-ring Anneau torique	1
74		SUGLOCK PUMP CASING BOTTOM PUMPENGEHÄUSEBODEN FOND DE VOLUTE		1
	309 62 00	Kurva nr, Curve No, Kurve Nr, Courbe N° 462, 463		
	385 48 00	Kurva nr, Curve No, Kurve Nr, Courbe N° 461, 465, 467		
78	427 05 00	Ring, kurva nr 254—259 Ring, Kurve Nr. 254—259	Ring, curve no. 254—259 Anneau, courbe N° 254—259	1
79	94 05 13	Isolerslang för manöversladd (400 mm) Insulation tube for control cable Isolerschlauch für Steuerleitung Gaine isolante pour câble auxilliare		1

Pumpgropsdetaljer, CP 3126
Sump components, CP 3126
Schachteinbauteile, CP 3126
Equipement du puisard CP 3126

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
80	81 41 58	6-kantskruv (M 12 x 45) Schraube	Screw Vis	4
81	82 23 62	Mutter (M 20) Mutter	Nut Ecrou	4
82	82 35 26	Bricka (21 x 36) Scheibe	Washer Rondelle	4
83	81 39 82	6-kantskruv (M 20 x 120) Schraube	Screw Vis	4
84	255 47 00	Mellanlägg Gummihülse	Rubber tube Manchon	2
85	380 91 00	Styrklo Gleitklaue	Sliding bracket Glissière	1
86	251 36 00	Sladdhållare Leitungshalter	Cable holder Fixe-câbles	1
87	304 28 00	Övre gejdfäste Upper guide bar holder Oberer Führungsrohr-Halter Attache supérieure pour barres de guidage		2
	304 28 01	Övre gejdfäste, galv. Upper guide bar holder, galv. Oberer Führungsrohr-Halter Galvanisiert. Attache sup. pour barres de guidage galv.		
88	304 18 00	Inmurningsrammenhet Einstiegrahmen	Access frame Cadre de trappe d'accès	1

Pos nr Item No. Pos.Nr N° de repérage	Detalj nr Part No. Bestell-Nr N° de pièce	Benämning Denomination Bezeichnung Désignation	Antal Anzahl	Quantity Curve No.	
			LT	MT, D	HT
			410-412	430-435	461-465
			441, 442	470-476	250-259 467

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KOPPLINGSFOT
DISCHARGE CONNECTION ASSY.
KUPPLUNGSFUSS
PIED D'ASSISE

Med oborrad fläns
With undrilled flange
Flansch ohne Bohrungen
Avec bride non forée

321 31 00	DN 200 (8")	1	—	—	—
309 77 00	DN 150 (6")	—	1	—	—
310 18 00	DN 100 (4")	—	1	1	—
303 75 00	DN 80 (3")	—	—	—	1

Fläns borrad för SMS 342 och DIN 2532-3
Flange drilled to SMS 342 and DIN 2532-3
Flansch gebohrt für SMS 342 und DIN 2532-3
Bride forée pour SMS 342 et DIN 2532-3

321 31 06	DN 200	1	—	—	—
309 77 06	(DIN 2533) DN 150	—	1	—	—
310 18 01	(DIN 2533) DN 100	—	1	1	—
303 75 01	(DIN 2533) DN 80	—	—	—	1

Fläns borrad för 1882 års norm.
Flange drilled to 1882 standard
Flansch gebohrt für Norm Jahre 1882
Bride forée pour la norme de 1882

321 31 02	DN 200	1	—	—	—
309 77 02	DN 150	—	1	—	—
310 18 02	DN 100	—	1	1	—
303 75 01	DN 80	—	—	—	1

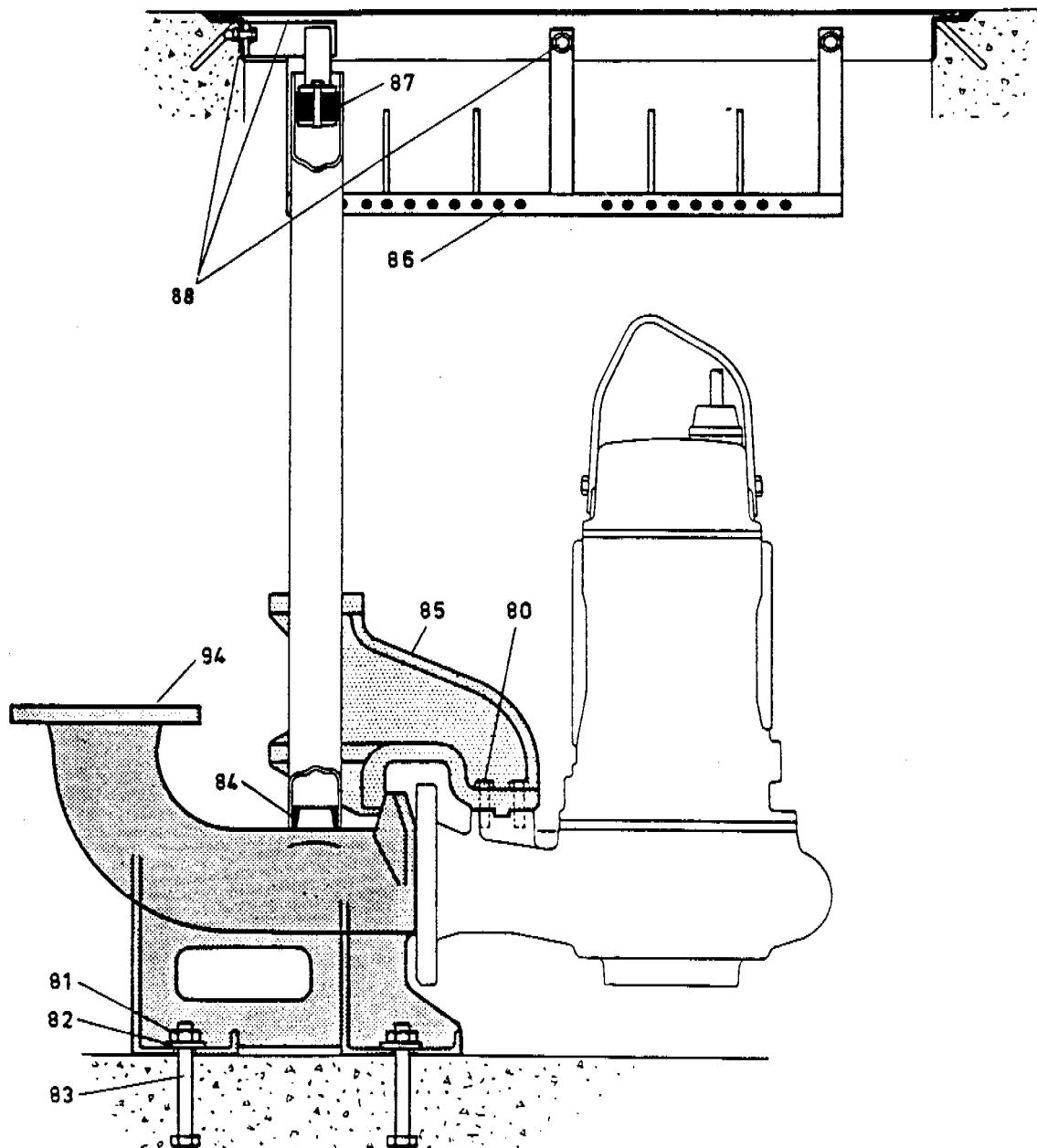
Fläns borrad för BS 4622:1970 Table 11
Flange drilled to BS 4622:1970 Table 11
Flansch gebohrt für BS 4622:1970 Table 11
Bride forée pour BS 4622:1970 Tableau 11

321 31 07	DN 200	1	—	—	—
309 77 06	DN 150	—	1	—	—
310 18 01	DN 100	—	1	1	—
303 75 07	DN 80	—	—	—	1

Pos nr Item No. Pos.Nr N° de repérage	Detalj nr Part No. Bestell-Nr N° de pièce	Benämning Denomination Bezeichnung Désignation	Antal Anzahl	Quantity Nombre
			Curve No.	
			410-412 430-435 461-465 250-259 441, 442 470-476 467	
			LT MT, D HT HT	

Fläns borrad för ANSI B16.1:1967 Table 5
 Flange drilled to ANSI B16.1:1967 Table 5
 Flansch gebohrt für ANSI B16.1:1967 Table 5
 Bride forée pour ANSI B16.1:1967 Tableau 5

321 31 06	DN 200 (8")	1	—	—	—
309 77 06	DN 150 (6")	—	1	—	—
310 18 05	DN 100 (4")	—	1	1	—
303 75 05	DN 80 (3")	—	—	—	1



Pumplokalsdetaljer, CT 3126

Sump components, CT 3126

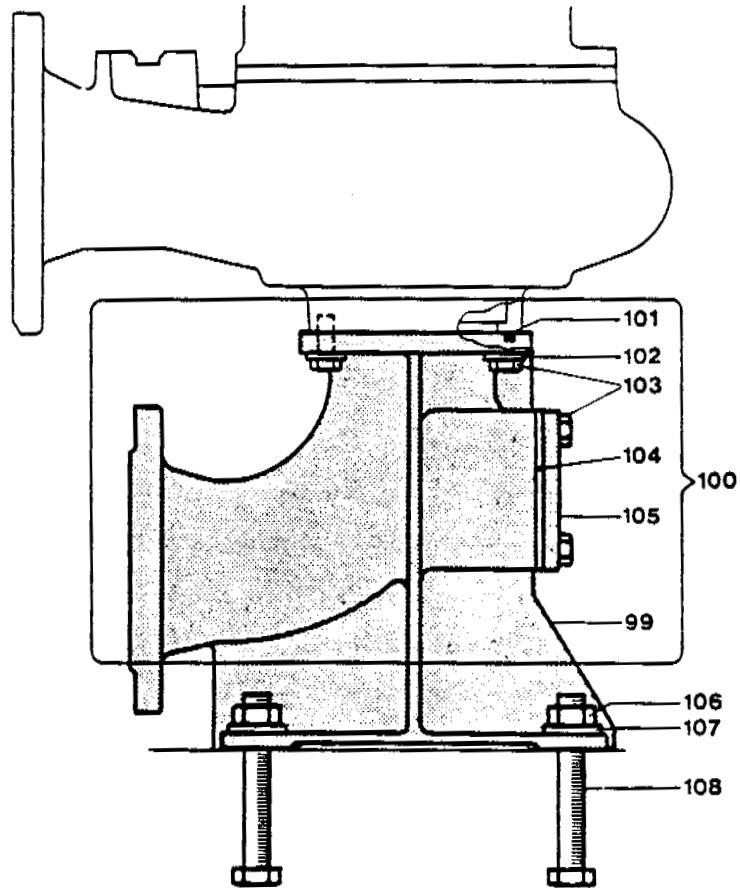
Pumpenraum-Zubehör für CT 3126

Equipement complémentaire pour pompe CT 3126

100	STATIV STAND STÄNDER BATI		Antal	Quantity	
			Anzahl	Nombre	
			LT	MT	HT
Med oborrad fläns With undrilled flange Flansch ohne Bohrungen Avec bride non forée					
309 46 00	DN 200 (8")		1	—	—
303 85 00	DN 150 (6")		—	1	—
303 72 00	DN 100 (4")		—	—	1
Fläns borrad för SMS 342 och DIN 2532-3 Flange drilled to SMS 342 and DIN 2532-3 Flansch gebohrt für SMS 342 und DIN 2532-3 Bride forée pour SMS 342 et DIN 2532-3					
309 46 06	DN 200		1	—	—
303 85 06	(DIN 2533) DN 150		—	1	—
303 72 01	(DIN 2533) DN 100		—	—	1
Fläns borrad för 1882 års norm. Flange drilled to 1882 standard Flansch gebohrt für Norm Jahre 1882 Bride forée pour la norme de 1882					
309 46 02	DN 200		1	—	—
303 85 02	DN 150		—	1	—
303 72 02	DN 100		—	—	1
Fläns borrad för BS 4622:1970 Table 11 Flange drilled to BS 4622:1970 Table 11 Flansch gebohrt für BS 4622:1970 Table 11 Bride forée pour BS 4622:1970 Tableau 11					
309 46 07	DN 200		1	—	—
303 85 06	DN 150		—	1	—
303 72 01	DN 100		—	—	1
Fläns borrad för ANSI B16.1:1967 Table 5 Flange drilled to ANSI B16.1:1967 Table 5 Flansch gebohrt für ANSI B16.1:1967 Table 5 Bride forée pour ANSI B16.1:1967 Tableau 5					
309 46 06	DN 200 (8")		1	—	—
303 85 06	DN 150 (6")		—	1	—
303 72 05	DN 100 (4")		—	—	1

Pos nr Item No. Pos.Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Denomination Bezeichnung Désignation	Antal Anzahl Nombre	Quantity Anzahl Nombre
			LT	MT HT
100				
99*		Inloppskrök Suction unit Einsaugeneinheit Unité d'aspiration	(1)	(1) (1)
101		O-ring O-ring O-Ring Anneau torique		
	82 74 88	174,3 x 5,7	(1)	— —
	82 74 86	164,3 x 5,7	—	(1) —
	82 74 17	124,3 x 5,7	—	— (1)
102		Bricka Washer Scheibe Rondelle		
	82 35 23	17 x 30	(4)	(4) —
	82 35 20	13 x 24	—	— (4)
103		6-kantskruv Screw Schraube Vis		
	84 34 03	M 16 x 40	(8)	(8) —
	81 41 55	M 12 x 30	—	— (8)
104		Packning Packing Packung Joint		
	303 88 00		(1)	(1) —
	303 77 00		—	— (1)
105		Renslucka Cleaning door Reinigungsdeckel Regard de nettoyage		
	309 48 00		(1)	— —
	303 87 00		—	(1) —
	303 76 00		—	— (1)

Pos nr Item No. Pos.Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Denomination Bezeichnung Désignation	Antal Anzahl Nombre		
			LT	MT	HT
106	82 23 62	Mutter (M 20) Nut Mutter Ecrou	4	4	4
107	82 35 26	Bricka (21 x 36) Washer Scheibe Rondelle	4	4	4
108	81 39 82	6-kantskruv (M 20 x 120) Screw Schraube Vis	4	4	4



Stativ och anslutning för CS 3126
Hose connection for CS 3126
Schlauchanschluß für CS 3126
Raccord de tuyau pour pompe CS 3126

Pos nr Item No. Pos.Nr N° de repérage	Detalj nr Part No. Bestell-Nr N° de pièce	Benämning Denomination Bezeichnung Désignation	Antal Anzahl		Quantity Nombre		
			Curve No.				
			410-412	430-435	461-465	250-259	466
			441, 442	472-476	467		468
			LT	MT, D	HT	HT	HS
110		6-KANTSKRUV SCREW SCHRAUBE VIS					
	81 41 56	M 12 x 35	—	—	4	4	4
	84 34 03	M 16 x 40	4	4	—	—	—
111		MUTTER NUT MUTTER ECROU					
	82 23 61	M 16	—	—	—	4	—
	82 23 62	M 20	8	8	4	—	—
112		BRICKA WASHER SCHEIBE RONDELLE					
	82 35 20	13 x 24	—	—	4	4	4
	82 35 23	17 x 30	4	4	—	—	—
113		6-KANTSKRUV SCREW SCHRAUBE VIS					
	84 34 08	M 16 x 65	—	—	—	4	—
	84 34 30	M 20 x 60	—	—	4	—	—
	84 34 32	M 20 x 70	8	8	—	—	—

Pos nr Item No. Pos.Nr N° de repérage	Detalj nr Part No. Bestell-Nr N° de pièce	Benämning Denomination Bezeichnung Désignation	Antal Anzahl		Quantity Nombre	
			Curve No.			
			410-412	430-435	461-465	250-259
			441, 442	472-476	467	4
			LT	MT, D	HT	H

114

TRYCKANSLUTNING
HOSE CONNECTION
SCHLAUCHANSCHLUß
RACCORD DE TUYAU

310 03 00	3"	Flange drilled to SMS 342, DIN 2533, 1882 standard and BS 4622:1970 Table 11	—	—	—	1	—
385 52 00	3—8 NPSM		—	—	—	1	—
259 82 00	4"		—	—	1	—	—
259 84 00	4—8 NPSM		—	—	1	—	—
259 84 01	R 4"		—	—	1	—	—
295 57 00	6"		—	1	—	—	—
309 31 00	6—8 NPSM		—	1	—	—	—
385 51 00	6—8 NPSM*		—	1	—	—	—
309 80 00	8"		1	—	—	—	—

* female thread

115

PACKNING
PACKING
PACKUNG
JOINT

339 87 00	—	—	1	1	—
310 05 00	—	—	—	1	—
259 83 00	—	1	—	—	—
295 64 00	1	1	—	—	—

116

STÖD
STAND
STÄNDER
SUPPORT

436 94 00	—	—	1	1	1
436 94 01	1	1	1	—	—

117

SLANGKLÄMMA
HOSE CLAMP
SCHLAUCHSCHELLE
COLLIER DE SERRAGE POUR TUYAU

82 31 33	3"	—	—	—	2	—
82 31 36	4"	—	—	2	—	3
82 31 38	6"	—	2	—	—	—
82 31 40	8"	3	—	—	—	—

Flygt Standard

94 06 28	3"
94 06 29	4"
94 06 31	6"
94 06 32	8"

Flygt Heavy Duty

94 06 51	4"
94 06 53	6"
94 06 54	8"

Flygt High Head

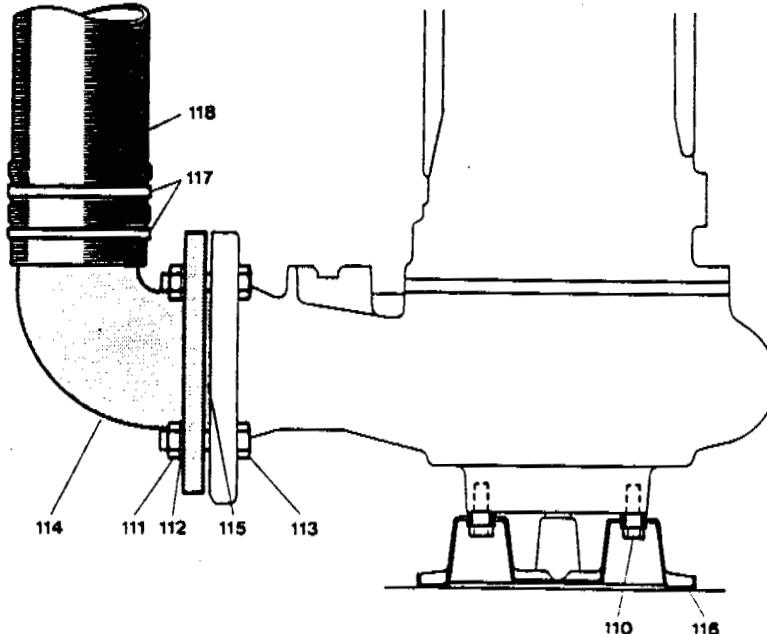
94 06 58	3"
94 06 59	4"
94 06 60	6"
94 06 61	8"

Flygt PVC Standard

94 06 65	3"
94 06 66	4"
94 06 67	6"
94 06 68	8"

Flygt PVC Superior

94 06 70	3"
94 06 71	4"
94 06 72	6"
94 06 73	8"



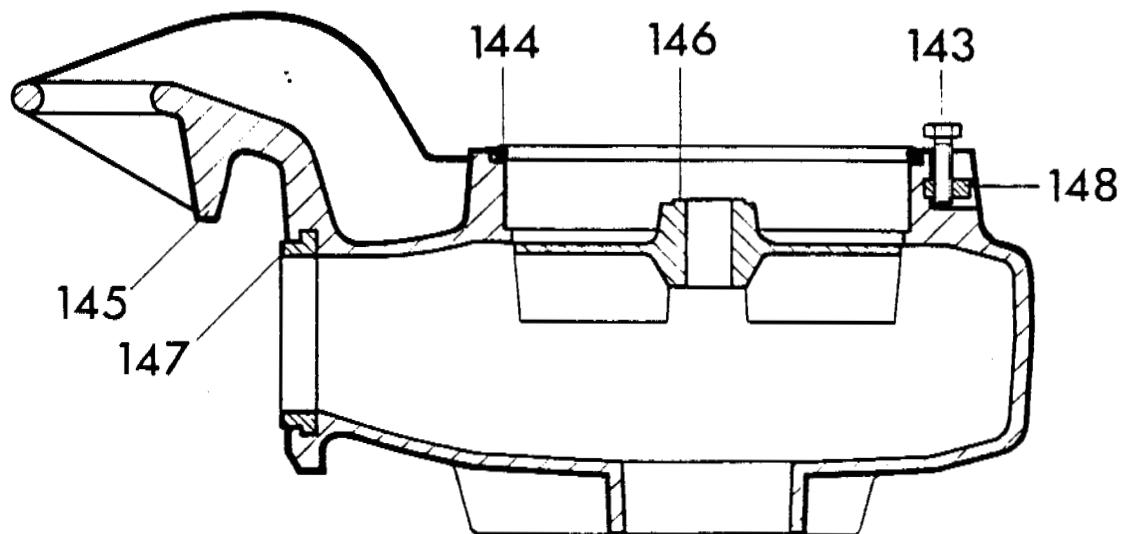
D-utförande. I övrigt lika C 3126.

D version. In other respects same as C 3126.

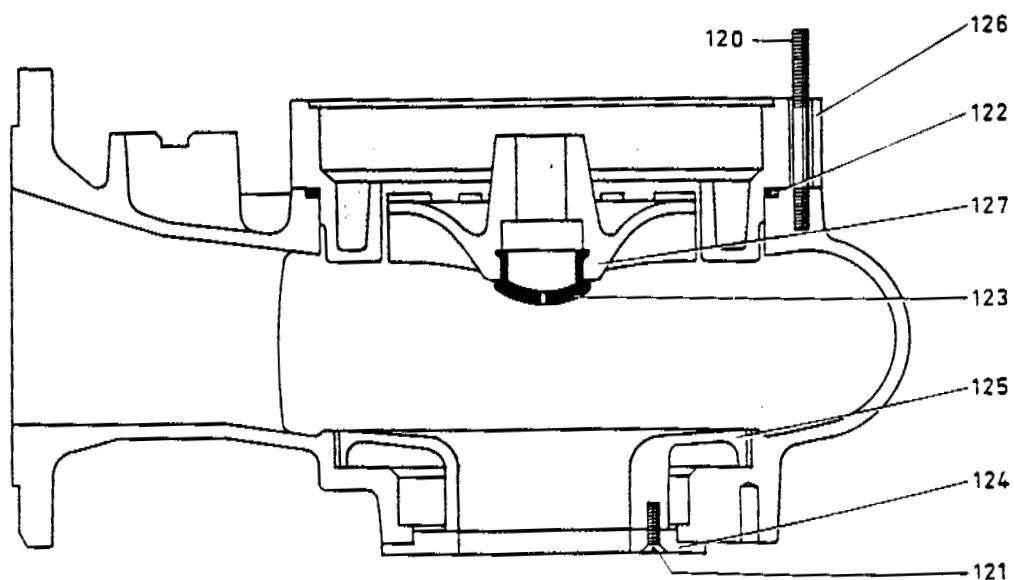
D-Ausführung. Im übrigen wie C 3126.

Modèle D. Par ailleurs, comme C 3126.

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
		KURVA NR. 470, 471 KURVE NR. 470, 471	CURVE NO. 470, 471 COURBE N° 470, 471	
143	81 41 60	6-kantskruv (M 12 × 55) Schraube	Screw Vis	4
144	82 74 38	O-ring (249,1 × 8,4) O-Ring	O-ring Anneau torique	1
145	429 60 00	Pumphus Pumpengehäuse	Pump casing Volute	1
146		Pumphjul, Kurva nr..... Laufrad, Kurve Nr.....	Impeller, Curve No.... Roue, Courbe N°....	1
	429 63 00 429 63 01	470, 50 Hz 471, 50 Hz		
147	429 66 00	Tätningsring Dichtungsring	Seal ring Joint	1
148	429 67 00	Mutter, special Mutter	Nut Ecrou	4



Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
		KURVA NR. 472—476 KURVE NR. 472—476		
120	80 95 41	Pinnskruv (M 12 x 110) Stiftschraube	Stud Goujon	6
121	81 94 07	Spärskruv (M 8 x 25) Schlitzschraube	Slotted screw Vis	4
122	82 74 99	O-ring (259,3 x 5,7) O-Ring	O-ring Anneau torique	1
123	288 19 00	Skyddspropp Gummischutzhäube	Rubber cap Capuchon en caoutchouc	1
124	309 58 00	Bricka Scheibe	Washer Rondelle	1
125		Suglock Pumpengehäuseboden	Pump casing bottom Fond de volute	1
	309 68 00	50—60 Hz, Kurva nr., Kurve No., Curve No., Courbe N° 472, 474		
	309 57 00	50—60 Hz, Kurva nr., Kurve No., Curve No., Courbe N° 476		
126	309 69 00	Ring Ring	Ring Anneau	1
127		Pumphjul, Kurva nr..... Laufrad, Kurve Nr.....	Impeller, Curve No.... Roue, Courbe N°....	1
	309 70 00	472, 50 Hz		
	309 70 01	474, 50—60 Hz		
	309 70 02	476, 50—60 Hz		



S-utförande. I övrigt lika C 3126.

S-version. In other respects same as C 3126.

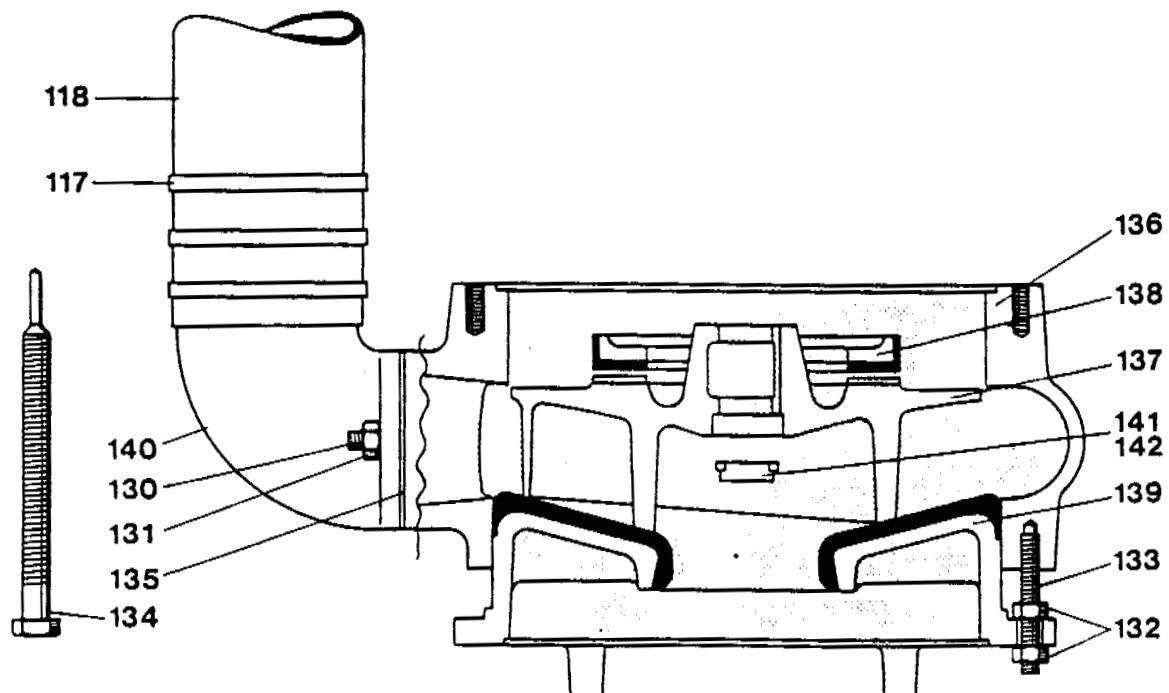
S-Ausführung. Im übrigen wie C 3126.

Modèle HS. Par ailleurs, comme C 3126.

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
130	80 95 28	Pinnskruv (M 12 x 45) Stiftschraube	Stud Goujon	2
131	82 23 59	Mutter (M 12) Mutter	Nut Ecrou	2
132	82 25 60	Mutter (M 12) Mutter	Nut Ecrou	8
133	84 46 56	Pinnskruv (M 12 x 80) Stiftschraube	Stud Goujon	4
134	303 58 00	Hjulavdragare Laufradabzieher	Impeller-puller Arrache-roue	1
135	339 87 00	Packning Packung	Packing Joint	1
136	339 88 00	Pumphus Pumpengehäuse	Pump casing Volute	1
137		PUMPHJUL, Kurva nr.... LAUFRAD, Kurve Nr....	IMPELLER, Curve No..... ROUE, Courbe N°.....	1
	339 89 00 339 90 00	466, 50 Hz 468, 50—60 Hz		
138	339 92 00	Slitskydd Verschleißschutz	Wear cover Pièce d'usure	1
139	339 94 00	Suglock Unterer Diffusor	Pump casing bottom Diffuseur inférieur	1

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung Denomination Désignation		Antal Quantity Anzahl Nombre
140		TRYCKANSLUTNING DISCHARGE CONNECTION DRUCKANSCHLUß COUDE DE REFOULEMENT		1
	340 88 00	4"		
	340 89 00	4—8 NPSM		
	340 89 01	R 4"		
141	343 53 00	Mutter spec. Mutter	Nut Ecrou	1
142	82 35 20	Bricka Scheibe	Washer Rondelle	1

HS. Curve No. 466, 468



F-utförande. I övrigt lika C 3126.

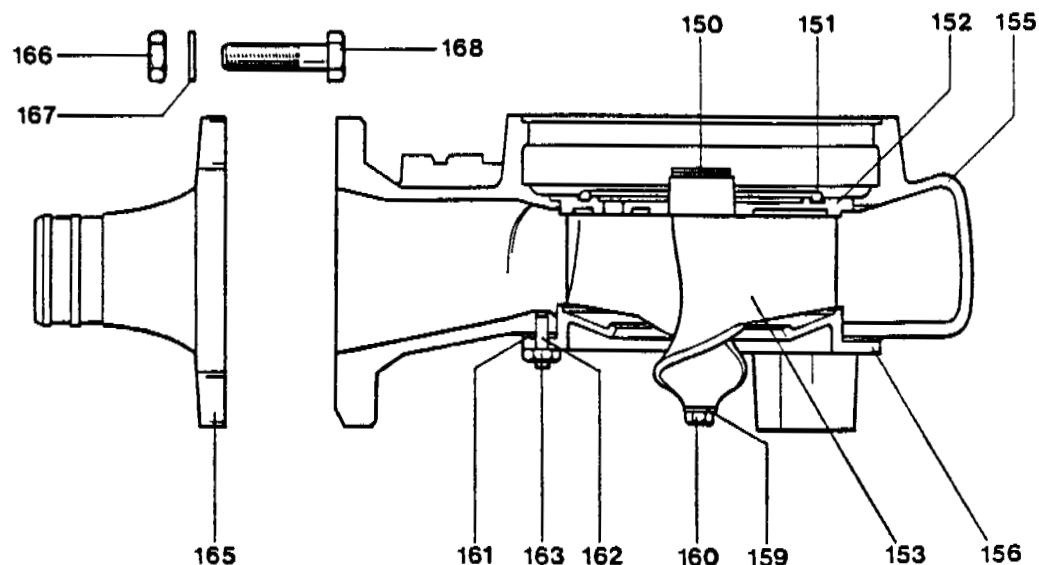
F-version. In other respects same as C 3126.

F-Ausführung. Im übrigen wie C 3126.

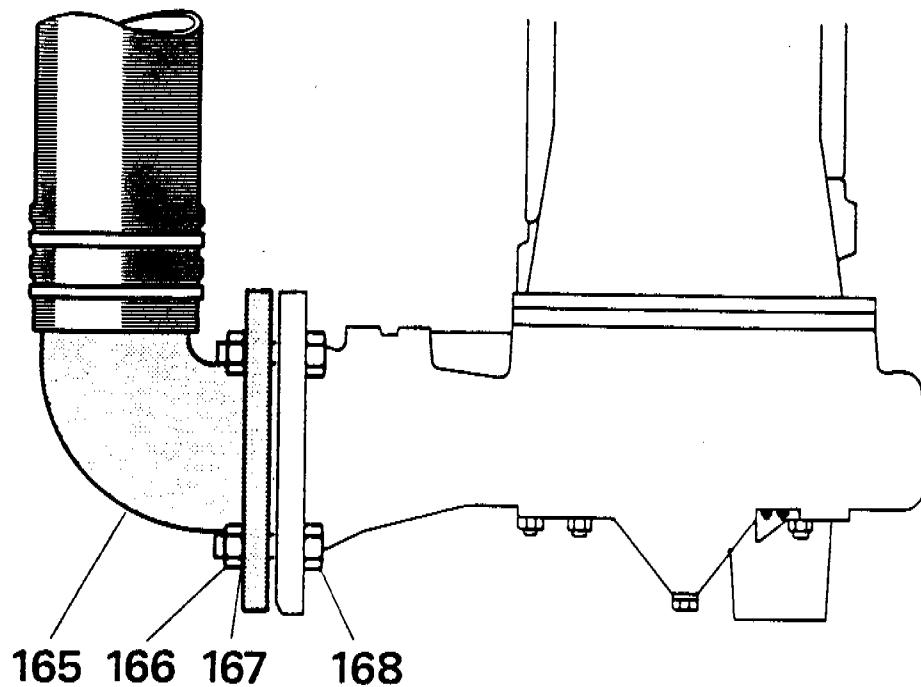
Modèle F. Par ailleurs, comme C 3126.

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
150		JUSTERBRICKA JUSTIERSCHEIBE	ADJUSTING WASHER RONDELLE DE REGLAGE	
	298 62 00	0,3 mm		4
	298 62 02	0,5 mm		4
151	82 74 29	O-ring (174,1 x 8,4) O-Ring	O-ring Anneau torique	1
152	396 55 00	Pumphuslock Deckplatte	Cover plate Plaque de recouvrement	1
153		PUMPHJUL, Kurva nr.... LAUFRAD, Kurve Nr....	IMPELLER, Curve No.... ROUE, Courbe N°....	1
	435 31 00	490, 50 Hz		
	435 31 01	491, 50 Hz, 60 Hz		
	435 31 02	492, 50—60 Hz, 60 Hz Single phase		
155		PUMPHUS, DN 150 PUMP CASING, DN 150 (6") PUMPENGEHÄUSE, DN 150 VOLUTE, DN 150		1
	435 32 06	Fläns borrat för SMS 342, DIN 2533, BS 4622:1970 Table 11 och ANSI B16.1:1967 Table 5 Flange drilled to SMS 342, DIN 2533, BS 4622:1970 Table 11 and ANSI B16.1:1967 Table 5 Flansch gebohrt für SMS 342, DIN 2533, BS 4622:1970 Table 11 und ANSI B16.1:1967 Table 5 Bride forée pour SMS 342, DIN 2533, BS 4622:1970 Tableau 11 et ANSI B16.1:1967 Tableau 5		
156	416 80 00	Pumphusbotten Pumpengehäuseboden	Pump casing bottom Fond de volute	1
159	403 94 02	Bricka, special Scheibe	Washer Rondelle	1
160	438 57 00	Insexskruv (M 12 x 193) Innensechskantschraube	Allen screw Vis Allen	1

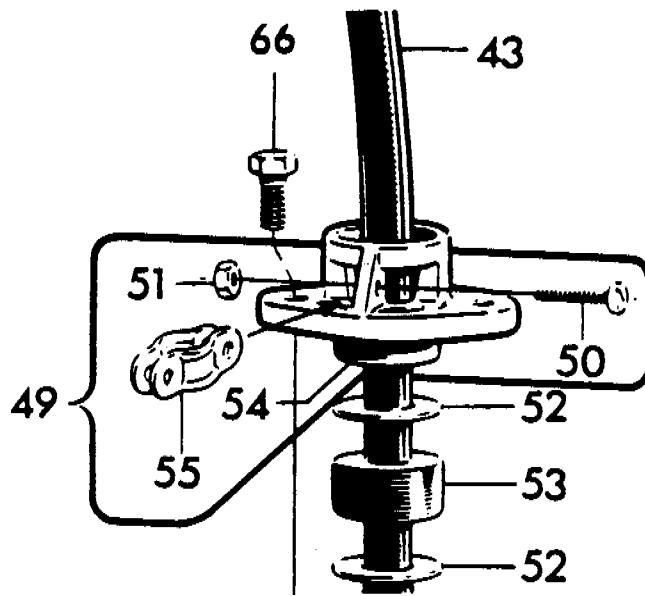
Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
161		JUSTERBRICKA JUSTIERSCHEIBE	ADJUSTING WASHER RONDELLE DE REGLAGE	
	334 71 00	0,3 mm		15
	334 71 01	1,5 mm		9
162	80 95 28	Pinnskruv (M 12 x 45) Stiftschraube	Stud Goujon	3
163	82 27 29	Mutter Mutter	Nut Ecrou	3
164	438 58 00	Hjulavdragare Laufradabzieher	Impeller-puller Arrache-roue	1
165		TRYCKANSLUTNING SCHLAUSCHANSCHLUß	HOSE CONNECTION RACCORD DE TUYAU	1
	391 42 00	4"		
	391 43 00	4—8 NPSM		
	404 71 00	Jetmunstycke 4" Jet-Düse	Jet-nozzle Bec d'éjection	
166	82 23 62	Mutter (M 20) Mutter	Nut Ecrou	2
167	82 37 30	Bricka Scheibe	Washer Rondelle	2
168	84 34 34	6-kantskruv (M 20 x 80) Schraube	Screw Vis	2



Slanganslutning FS 3126
Hose connection for FS 3126
Schlauchanschluß für FS 3126
Raccord de tuyau pour pompe FS 3126

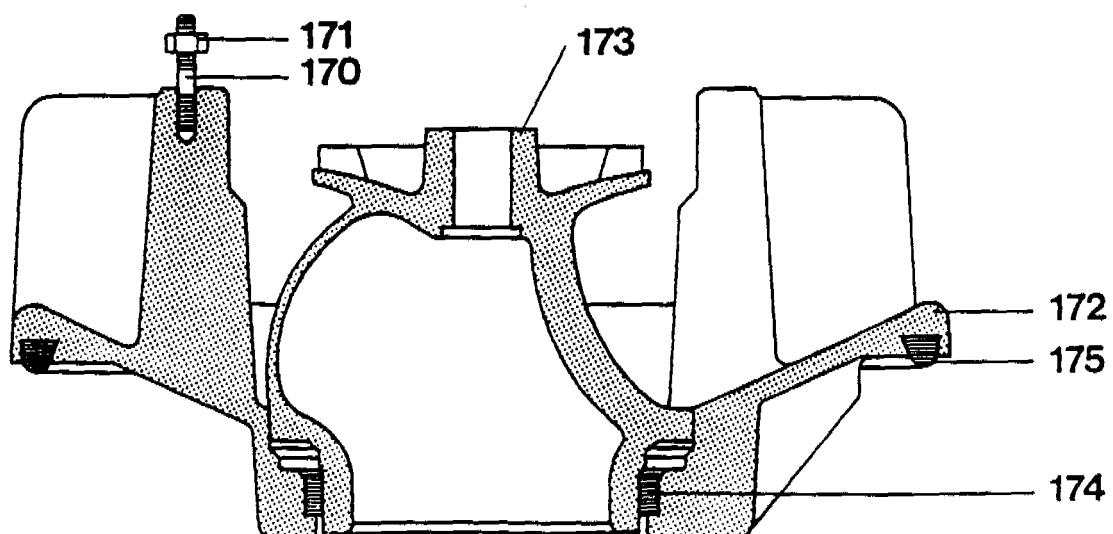


Sladdinföring för F-pump
Cable entry for F-pump
Leitungseinführung für F-Pumpe
Entrée de câble pour F-pompe



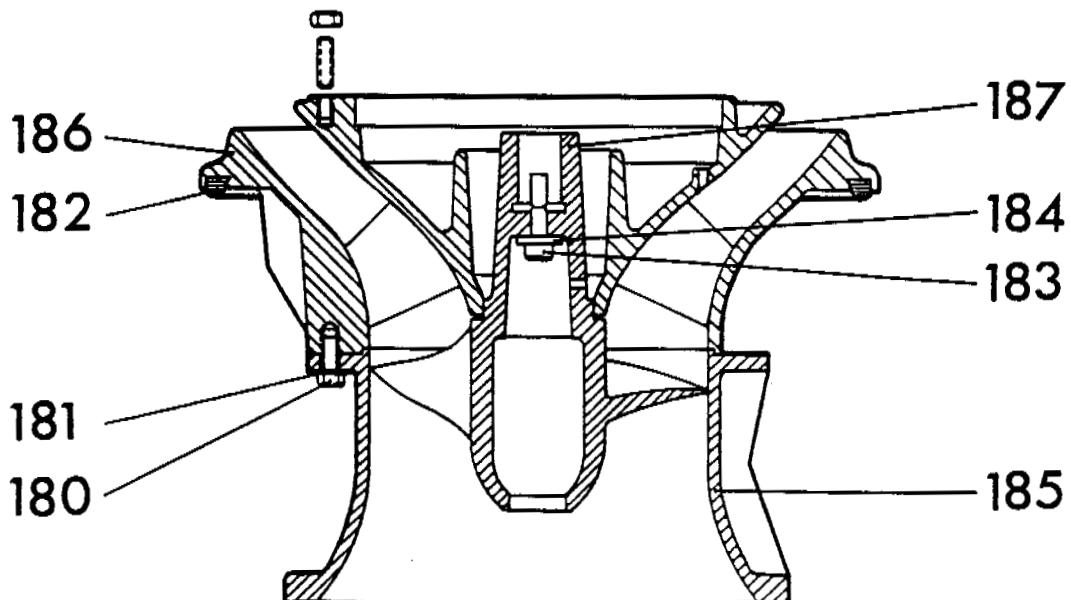
**LL-utförande.
LL-version.
LL-Ausführung.
Modèle LL.**

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
170	80 95 30	Pinnskruv (M 12 × 55) Stiftschraube	Stud Goujon	3
171	82 23 59	Mutter (M 12) Mutter	Nut Ecrou	3
172	396 73 00	Ledskenedel Diffusor	Diffuser Anneau diffuseur	1
173		PUMPHJUL, Kurva nr.... LAUFRAD, Kurve Nr....	IMPELLER, Curve No.... ROUE, Courbe N°....	1
	309 19 00 309 21 00 309 71 00	410, 50 Hz 411, 50—60 Hz 412, 50—60 Hz		
174	314 88 03	Ring Ring	Ring Anneau	1
175	82 83 41	G-ring G-Ring	G-ring Anneau G	1
176	249 92 01	Hjulavdragare Laufradabzieher	Impeller puller Arrache-roue	1



**PL-utförande.
PL-version.
PL-Ausführung.
Modèle PL.**

Pos nr Item No. Pos.-Nr. N° de répérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung	Denomination Désignation	Antal Quantity Anzahl Nombre
180	81 41 54	6-kantskruv (M 12 x 25) Schraube	Screw Vis	6
181	82 35 20	Bricka (31 x 24 x 2) Scheibe	Washer Rondelle	6
182	82 83 41	G-ring G-Ring	G-ring Anneau G	1
183	84 42 58	Insexskruv (M 12 x 60) Innensechskantschraube	Allen screw Vis Allen	1
184	338 13 04	Bricka, special Scheibe	Washer Rondelle	1
185	416 76 00	Inloppstratt Einmündung	Bellmouth Tuyau d'arrivée	1
186	416 78 00	Pumphus Pumpengehäuse	Pump casing Volute	1
187		Propeller, Kurva nr.... Propeller, Kurve Nr....	Propeller, Curve No.... Hélice, Courbe N°....	1
	416 82 00	495, 50—60 Hz		
	433 48 00	496, 50—60 Hz		



VARMVATTENVERSION, max. 90°C
HOT WATER VERSION, max. 90°C
HEISSWASSERAUSFÜHRUNG, max. 90°C
MODÈLE D'EAU CHAUDE, max. 90°C

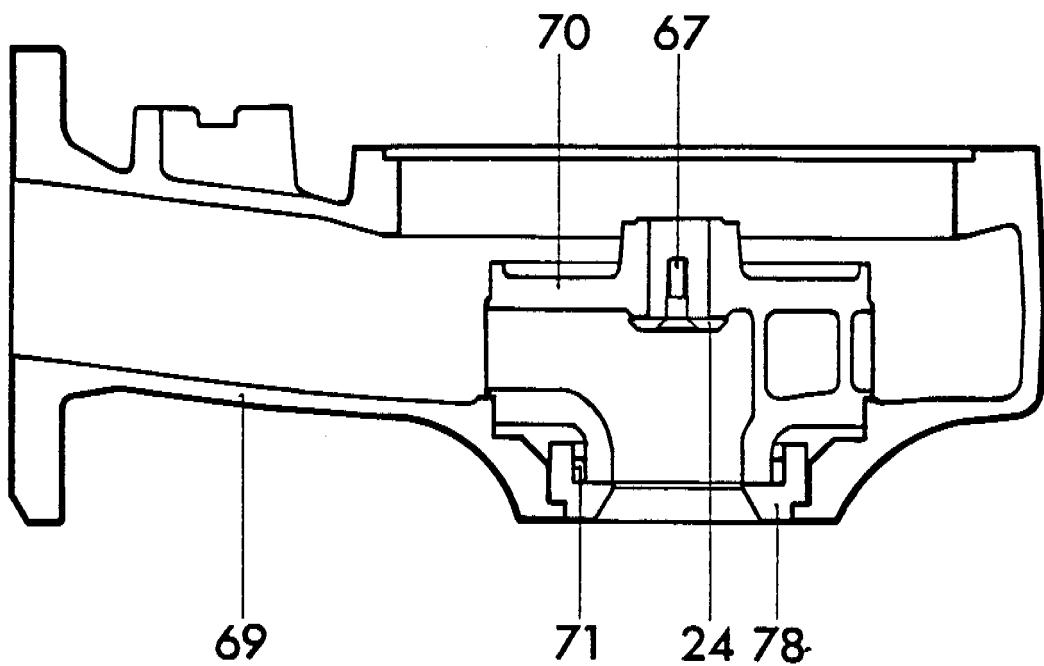
Följande detaljnummer ska användas vid reservdelsbeställning.

Following part No. shall be used when ordering spare parts.

Folgende Bestell-Nr. sollen bei Ersatzteilbestellungen verwendet werden.

Les numéros de pièces qui suivent se servent sur commande des pièces de rechange.

Pos nr Item No. Pos.-Nr. N° de repérage	Detalj nr Part No. Bestell-Nr. N° de pièce	Benämning Bezeichnung Bestell-Nr. N° de pièce	Denomination Désignation	Antal Quantity Anzahl Nombre
		O-RING O-RING	O-RING ANNEAU TORIQUE	
12	82 72 95	19.2 x 3		3
14	82 80 84	74.2 x 5.7		1
15	82 80 82	104.5 x 3		1
16	82 80 85	159.3 x 5.7		1
17	82 75 24	194.3 x 5.7		1
18	82 80 83	209.3 x 5.7		1
19	82 80 86	239.3 x 5.7		1
20	82 80 87	249.3 x 5.7		1
26	82 75 19	54.5 x 3		1
36	82 79 25	43.0 x 5		1
73	82 75 22	279.3 x 5.7		
23	434 96 00	Dataskylt Datenschild	Data plate Plaque signalétique	1
25	302 09 08	Övre plantättningsenhet Dichtungseinheit, obere	Seal unit, upper Joint mécanique, sup.	1
35	302 24 05	Nedre plantättningsenhet Dichtungseinheit, untere	Seal unit, lower Joint mécanique, inf.	1
42	82 68 55	Spårring (SgA 30) Nutring	Retaining ring Circlip	1
43		SLADD LEITUNG	CABLE 8 m, 20 m CABLE	
		Manöversladd Steuerleitung	Control cable Câble auxiliaire	
	94 19 40	REVE, 3G—1.5 mm ² , Max. 70°C		0—1
	94 19 52	FHV, 3G—1.5 mm ² , Max. 90°C		
		Motorsladd Motorleitung	Motor cable Câble	
	94 19 43	REVE, 4G—6 mm ² , Max. 70°C		1—2
	94 19 55	FHV, 4G—2.5 mm ² , Max. 90°C		1—2
55		Ska ej användas Nicht gebrauchen	Not to be used Prohibé de employer	



HT. Curve No. 461—465, 467

